ENGINEERING IC's FIRE-FIGHTING FORMULA

February 10, 1969

RAILWAY AGE

THE TRANSPORTATION WEEKLY

RD70 1116
MCCARTNEY LIBRARY
GENEVA COLLEGE
BEAVER FALLS PENN 15010

A. SCHEFFER LANG

A CRITICAL LOOK BACK,
A CRITICAL LOOK AHEAD

"HI-CANT" TIE PLATES:

NEW WAY TO COMBAT RAIL SHELLING

Can Anchor® brake shoes say "50% tougher bond" and make it stick?

Exclusive new Anchor Shu-Glu adhesive

looks like the answer to all backing plate separation. We think we've solved a longstanding industry problem. In our exhaustive tests we haven't had a failure yet.

Anchor Brake Shoes already outlast all iron shoes on the market 4 to 5 times. In addition they:

• Need only ⅓ to ½ the braking forces of cast iron shoes in similar service. • Reduce wear, piston travel adjustment, maintenance. • Permit lighter, less costly truck members and smaller air actuating chambers. • Simplify brake rigging. • Are available in types for almost every kind of rail service and installation. • Deliver superior braking performance, uniform friction and wear. • Give accurate wear prediction, plus long life, that slashes repair stock needs. • Extend car operation.

And now with our new Shu-Glu adhesive with a 50% tougher bond. See if we haven't solved a sticky problem.

GRIFFIN® WHEEL COMPANY
445 N. Sacramento Blvd., Chicago, Ill. 60612
In Canada: Griffin Steel Foundries, Ltd.
ONE OF THE Amsted INDUSTRIES

Circle 1 on coupon page 29

Circle 4 on coupon page 29

Both of these Trackmobiles move and spot railcars. Both have steel rail wheels and an auxiliary set of rubber-tired road wheels. They can run on roads, then hydraulically lower themselves onto rails and *vice versa*. Each Trackmobile has the Whiting patented feature of transferring part of the railcar weight to itself to increase tractive effort.

The 1TM model at left is designed for the plant that moves just a few railcars. It can pull one loaded car or two empties—and the model 1TM will pay for itself if you move just one railcar a day.

The big 9TM has rail couplers on front and back. The operator can decide to *push or pull* as many as 20 cars so that he can always position himself on the inside of a curve and never lose visual contact with his switchman.

These two models run in any weather, do not need an improved road bed, can't be bottled up and can park anywhere.

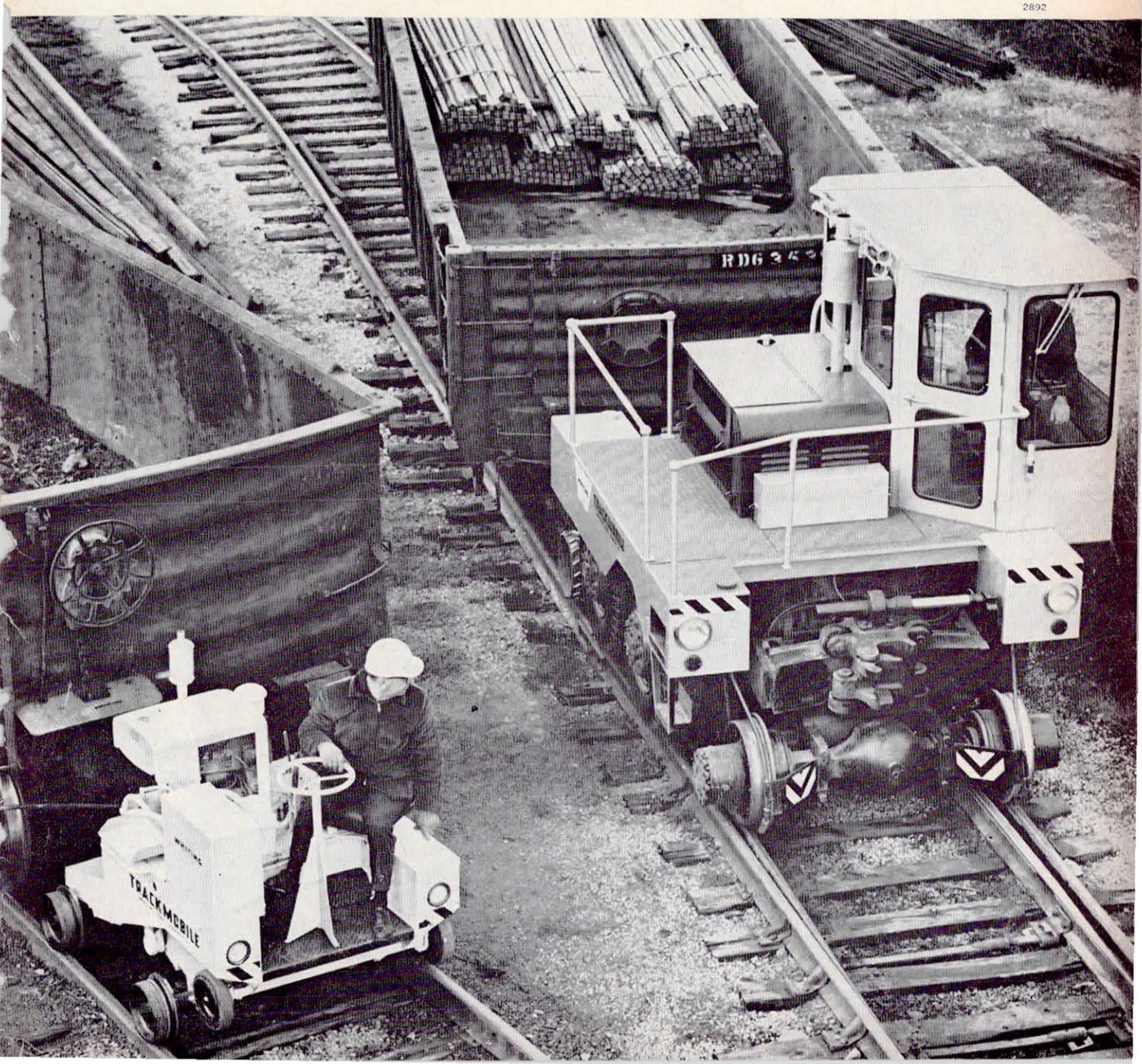
Which is the best for you? Well, do you want to move one car or 20?

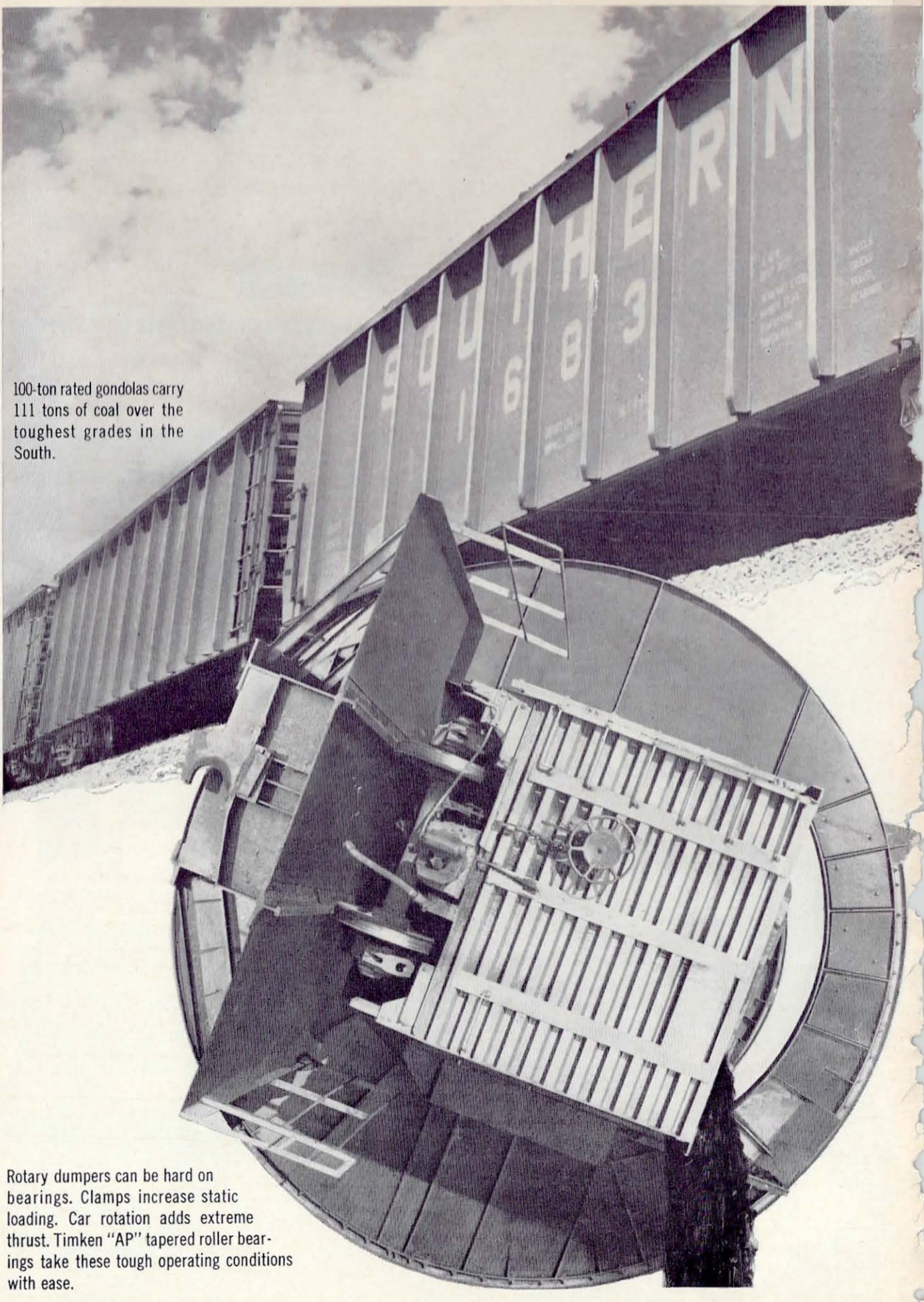
Two new Trackmobile® models to pull one car or a small train

WHITING CORPORATION

HARVEY, ILLINOIS 60426 U.S.A.

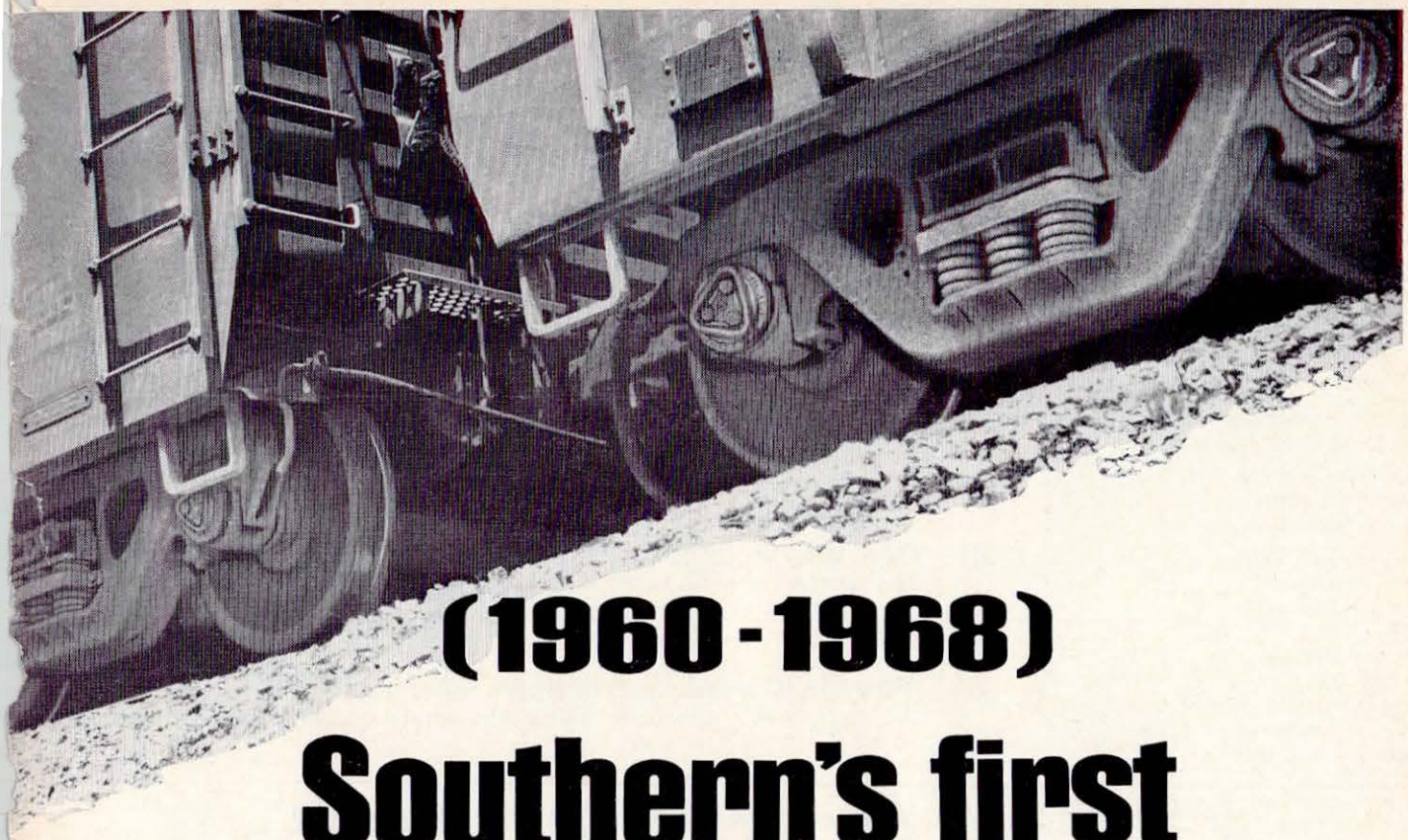
2892





100-ton rated gondolas carry 111 tons of coal over the toughest grades in the South.

Rotary dumpers can be hard on bearings. Clamps increase static loading. Car rotation adds extreme thrust. Timken "AP" tapered roller bearings take these tough operating conditions with ease.



(1960-1968)

Southern's first unitized coal train rolls 300,000 miles on original Timken® "AP" bearings.

Today, these same cars continue to roll as part of Southern's 292 specially designed, Timken® "AP" bearing equipped gondolas that do the work of nearly 1500 conventional cars.

Southern developed what is believed to be the first unitized coal train to serve one purpose, one customer, one run: hauling coal 106 miles from the mines of Parrish, Alabama, to a powerplant at Wilsonville. And to keep each specially designed gondola rolling maintenance free, Southern specified Timken "AP" roller bearings.

So successful was this initial one-purpose train, Southern began a second and third unitized coal train running from Andover, Va. to Belmont, N.C. and Catawba, N.C. These cars have averaged over 85,000 miles a year in the first two years of operation.

Despite round-the-clock-service, steep North Carolina mountain terrain, high speeds on the Alabama levels, and the wrenching in rotary dumps, recent inspections show no bearing damage, either on original bearings dating from 1959, or on recent purchases. Insist on Timken "AP" bearings and get this same kind of dependable service.

The Timken Roller Bearing Company, Canton, Ohio, U.S.A.

TIMKEN®
TAPERED ROLLER BEARINGS

Circle 5 on coupon page 29

RAILWAY AGE

Feb. 10, 1969 • Vol. 166, No. 5

THIS WEEK

14 "Railroads must rethink their basic goals"
A. Scheffer Lang takes a critical look at railroads—past and future.

21 New way to fight rail shelling
The weapon is a tie plate with an unusually high angle of cant.

24 How the IC helps local firemen—and itself
It's done with a full-scale firefighting-education campaign.

40 Viewpoint—Another expensive labor battle?
The "featherbedding" pot is bubbling furiously again.

DEPARTMENTS

23	As the Editor Sees It	27	People in the News
32	Bookshelf	7	Short and Significant
33	Freight Carloadings	37	Supply Trade
12	Lines on Labor	40	Viewpoint
8	Monday Morning Report	26	Watching Washington
33	New Equipment	9	Week at a Glance
29	New Products Report	36	You Ought to Know

. . . AND COMING NEXT WEEK

Tomorrow's Railroads: The marketing man's view of the railroad problem. No. 2 in a 12-part exploration of what can and must be done—starting now—to create the 21st century railroad, the 21st century transportation system.

Editorial and Executive Offices
New York, N.Y. 10007, 30 Church St.

ROBERT G. LEWIS: Publisher
LUTHER S. MILLER: Editor
FRED C. MILES: Executive Editor

Transit Editor: Joseph Asher
Mechanical: F. N. Houser
Car & Locomotive Cyclopedia:
C. L. Combes
Art Director: Joel Petrower
Art Editor: Maurice H. Mates
Art Assistant: Thomas J. Pendergast
Editorial Assistant: June Meyer
Market Research: Robert N. Paltos
Librarian: Edith C. Stone
Production Manager: Fred B. Hecht
Manager—Contract Department:
Constance Nicolai

Editorial and Executive Offices
Chicago, Ill. 60604, 14 E. Jackson Blvd.

C. JAMES FISHER: Vice President—Sales
GUS WELTY: Senior Editor
Mechanical: Robert D. Bartley
Engineering:
M. H. Dick R. E. Dove
Signaling & Communications:
Robert W. McKnight
Editorial Assistant: Wanda Brown

Washington, D.C. 20004,
National Press Bldg.
Washington Editor: Frank Malone

London, W.C. 2, England, 4, Talbot House; 98 St. Martin's Lane
International Editor:
John Levett

Contributing Editors:
Norman E. Gillespie
3205 Chelsea
Orlando, Florida 32803

Charles Layng
6019 Nashua St.
Orlando, Florida 32809

E. L. Woodward
876 Chattanooga Ave.
Pacific Palisades, Calif. 90272

GEORGE DUSENBURY: Editorial Director

FOR LIST OF SALES OFFICES SEE ADVERTISING INDEX PAGE

Member of ABC RPI

Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.
Published weekly (except for four issues combining two-in-one) by the Simmons-Boardman Publishing Corporation, 508 Birch St., Bristol, Conn. 06010.
Railroad employees' subscription rate, U.S. possessions, Canada and Mexico, $6 one year, $9 two years, all others $15 for one year, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year. Single copies 60¢ except special issues.
Address all subscriptions, change of address and correspondence concerning them to Subscription Dept., Railway Age, P.O. Box 961, Bristol, Conn. 06010.
Change of address should reach us three weeks in advance of next issue date. Send old address with new enclosing, if possible, your address label. Post Office will not forward copies unless you provide extra postage.

Circulation Dept.: John Rogers Director of Circulation, 30 Church St., New York, N.Y. 10007. POSTMASTER—SEND FORM 3579 TO P.O. Box 961, BRISTOL, CONN. 06010.
Printed at the Hughes Printing Co., 34 North Crystal St., East Stroudsburg, Pa. 18301. Second-class postage paid at Bristol, Conn., and at additional mailing offices.

SHORT AND SIGNIFICANT

L&N, UTU crew dispute triggers new court action

By current count, the crew-consist dispute between Louisville & Nashville and the United Transportation Union has touched off three separate legal battles—in three separate federal courts. Latest action to be filed is a $6.5-million civil suit in which UTU charges L&N with interfering in the union's business. UTU chose U.S. District Court in East St. Louis, Ill., for this complaint. Meanwhile, briefs were filed last week in U.S. District Court in Nashville, in L&N's bid for an order barring UTU from striking over the crew-size dispute. A temporary restraining order remained in effect. Also pending is a third case, filed in U.S. District Court in Louisville, in which dissident union members are asking that the organization be required to bargain for additional pay for employees working on small crews.

Coal records still toppling on the N&W

Norfolk & Western coal loadings reached a new high in January, when the railroad's Lamberts Point (Va.) piers poured 2,906,261 tons of coal into vessels and barges for export and coastwise movement. The previous high—2,604,342 tons—was established in January 1968. A new high mark for a single day was established Jan. 8 when 138,087 tons of coal was loaded.

CF&I Steel, Crane Co. may get together

Managements of CF&I Steel Corp. and Crane Co. are "exploring the possibility" of a combination of the two companies. Specifics are subject to further negotiation, but the plans now being discussed involve an exchange of CF&I common shares for Crane debentures and rights to acquire Crane common.

Network model gets AAR OK for bidding

The AAR board has approved a call for bids for stored computer programs for a railroad network simulation model. Plans involve hiring of outside consultants to develop programs and train personnel in use of the model. The model will be concerned with major elements of operation, such as yards, terminals, yard engines, car inspectors, and yard entrance and exit points. Analytic and mathematical solutions will be used to study the interactions of the various operations. Network simulation will make possible the testing of various strategies without requiring an actual performance of tasks experimentally.

TurboTrains: New Haven service may start soon

To appraise braking performance at various speeds, a series of "stop distance" tests are being conducted on the U.S. Department of Transportation TurboTrains by Penn Central. The short blocks and numerous drawbridges on its New Haven Division, says PC, require such safe and reliable brakes that the turbine-powered United Aircraft trains will be subjected to testing like that given earlier to the New York-Washington Metroliners. It is expected that remaining TurboTrain problems can be surmounted shortly and that these lightweight articulated trains will then supplement the new New York-Boston schedules which reduced conventional train service early this month.

10% increase in passenger fares sought by PC

Penn Central plans to increase basic passenger fares—with important exceptions—on March 1. The proposed 10% hike would not apply to commutation, trips within New Jersey and between points in that state and metropolitan New York, and intrastate trips in suburban areas because "contractual agreements with state and local governments provide partial public support for these services." James M. Loconto, PC's assistant vice president-passenger service, noted that this is the first rise in the cost of coach and first-class tickets in eight years, a period during which passenger-service deficits on the PC have just about doubled (to an estimated $100 million last year).

MONDAY MORNING REPORT

WILL ICC PROBE ICI CONTROL?

It's now up to the Interstate Commerce Commission to decide if Union Pacific has made it irrefutably clear that it exercises no control of Illinois Central Industries. Missouri Pacific in December (and North Western in January) petitioned the Commission to investigate ICI ownership. Replies of UP, ICI and two interested parties, Frisco and Gulf, Mobile & Ohio, are in. They all contend the evidence fails to justify such an investigation.

UP's ARGUMENT: 16% IS SPREAD THREE WAYS

Union Pacific's main argument is that the 1,432,880 shares of ICI stock that it once owned are now spread three ways under three separate ICC-approved trust agreements with United States Trust Co. of New York, Seattle-First National Bank and United California Bank. When UP owned all those shares, it points out, they amounted to just 16% of all ICI shares—hardly enough for control. Now, that block of shares is even less substantial, with three independent holders of 5.35% apiece. And after the proposed ICI-GM&O merger, each of the three blocks will shrink to 4.8%. UP states: "Industries' seven largest stockholders, excluding the three trusts established by Union Pacific . . . own over 1,500,000 shares, or more than the collective ownership of the three trusts. These stockholders, as well as several others, are believed to represent large, experienced investors, namely, mutual, trust or pension funds which are administered by professional managements."

TRYING TO REVIVE A DEAD ISSUE . . .

Equally important, both Union Pacific and ICI say Missouri Pacific misinterprets the scope of the Commission's jurisdiction. ICC authority under Section 5 of the Interstate Commerce Act is limited to investigating and determining whether the Section 5 ban against control of one railroad by another is being violated. But, the respondents say, Missouri Pacific fails to meet ICC requirements for statements of factual allegations. And without the allegations, the ICC has no valid basis for an investigation. Further replies argue that the ICC dismissed the same issue less than a year ago on the basis of facts "which have not changed."

. . . JUST TO HARASS AND DELAY?

Such complaints, ICI says, "are all part of the same fabric being woven by those who wish to delay and frustrate, if not defeat, the merger movement." The Interstate Commerce Act should not be used as a means of delay and harassment, ICI adds. "There is literally nothing that the Commission could accomplish in conducting an expensive and time-consuming investigation . . . that could serve the public interest," ICI says. The Commission can take its time deciding what to do. But from statements like that of ICI, it is clear that the decision will have some interesting overtones.

RAILWAY AGE
THE TRANSPORTATION WEEKLY

Holding company formed by UP; benefits cited

Formation of the Union Pacific Corporation, a new holding company, will be "of basic importance to the Union Pacific Railroad." That point was emphasized in the Jan. 30 announcement that the UP's long-expected move toward diversification had been accomplished. Frank E. Barnett, chief executive officer of the Union Pacific Railroad Company since Jan. 1, 1967, is now chairman of the board and chief executive officer of the Union Pacific Corporation. James H. Evans, who formerly headed the Seamen's Bank for Savings, New York, is president; and Elbridge T. Gerry, a partner of Brown Brothers Harriman & Co. and a directo of UP since 1957, is chairman of the executive committee. Edd H. Bailey remains as president of the railroad. Barnett said: "The new company will better enable us to meet the challenge of . . . changing circumstances, eliminating as it does the restriction on diversification imposed on an interstate carrier by rail." But he stressed the growing importance of railroad operations to the company: "We recognize that the public interest in transportation is paramount and must be served, and we have great faith in the future of rail transportation. The formation of the new holding company recognizes that any company that seeks to maximize its growth opportunities must be in a position to diversify into new businesses and accept opportunities in a competitive market situation that reflects rapid changes in the public's demands and changes in technology."

WEEK AT A GLANCE

FRA will test car vibrations with C&O/B&O

Aiming at better protection of freight shipments, the Federal Railroad Administration will work with Chesapeake & Ohio/Baltimore & Ohio in tests to determine the sources and nature of vibrations transmitted from rails to freight car interiors. FRA will use the test results to develop freight-car suspension systems designed to improve riding quality of cars. C&O/B&O will provide a segment of track near Huntington, W.Va., which will be distorted to create exaggerated track conditions. Dr. H. N. Laden, C&O/B&O assistant vice president for research, said effects of vibration inside a freight car were first measured by C&O in a project with the AAR and the Army Signal Corps starting in 1948—"pioneering research" which contributed to many truck designs. In the new tests, a highly-instrumented 50-ft, 70-ton box car will be used, along with FRA research cars.

1968 car orders add up to 63,556

Orders were placed in December 1968 for 9,356 new freight cars, bringing the year's total to 63,556, the American Railway Car Institute announced last week. Orders for all of 1967 totaled 53,724 cars. Deliveries in 1968 added up to 56,332 cars, a sharp drop from the 83,095 cars delivered in 1967 (when effects of heavy ordering in 1966 were still being felt). Orders for new cars in December 1968 represented a jump of more than 1,000 over December 1967 orders. At the same time, orders for rebuilds dropped from 1,108 in December 1967 to 1,000 in the '68 month.

On Jan. 1, 1969, the backlog of new cars on order and undelivered was 31,735. The comparable figure on Jan. 1, 1968, was 24,534.

Coming this week: Metroliner No. 2

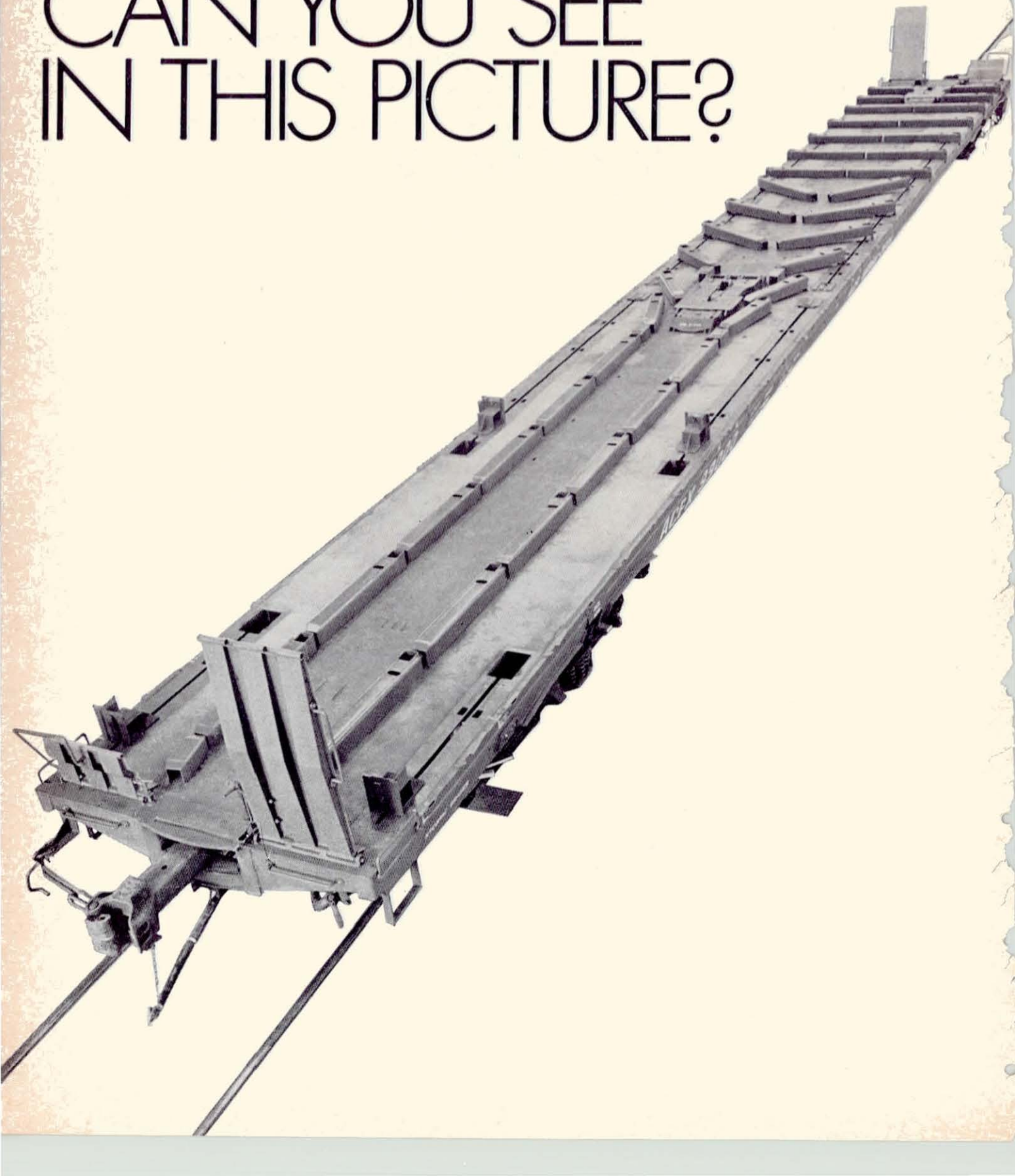
Penn Central's New York-Washington Metroliner No. 1—which began service Jan. 16—will be joined by an identical twin this week. The additional train, with Metroclub cars and snack-bar coaches, will provide morning departure from Washington at 8:20 a.m. and afternoon departure from New York at 4:15 p.m. Like the first train (which leaves New York at 8:30 a.m. and Washington at 3:55 p.m.) the new one is scheduled for 2 hours and 59 minutes in each direction. This means that 12 of the 50-car Metroliner fleet will be in service. Others will be added as they pass acceptance tests.

Said James M. Loconto, assistant vice president-passenger service: "Fast morning and afternoon trains in both directions move the Metroliners toward our 'ground shuttle' concept of convenient service."

And how is Metroliner doing so far? "Reservations for both Metroclub and coach accommodations are running well into the weeks ahead," said Loconto. "We are delighted with the response and are aware that a number of our patrons have not ridden on trains in a long time." Reservations are required for Metroclub seats.

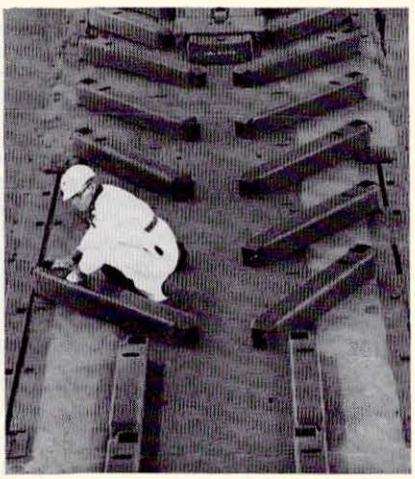
Seating in coaches is assured by pre-purchase of tickets and issuance of boarding passes only to the limit of a train's capacity.

HOW MANY FLAT CARS CAN YOU SEE IN THIS PICTURE?



Men who know the Versa-Deck™ car can see at least three. The first carries trailers. The second, containers. And the third hauls bulk loads of all sorts.

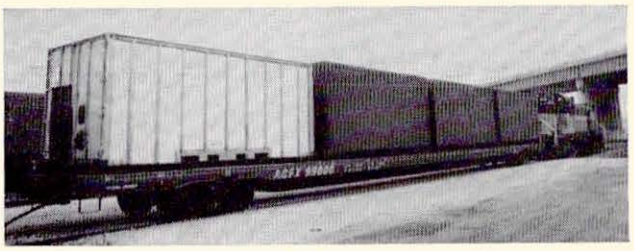
Versa-Deck is the multi-service flat car. A single workman can convert Versa-Deck



Steel guide rail sections swivel easily to double as permanent bulk load dunnage.

to or from a COFC, TOFC, or bulk lading configuration in less than 15 minutes.

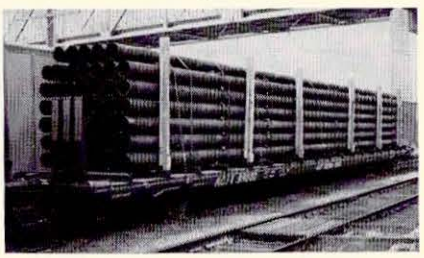
As a bulk car, the 89' Versa-Deck provides the greatest capacity per dollar of any car on the market. And with its other capabilities, Versa-



Retractable pedestals adjust to accommodate containers of many different sizes.

Deck offers you the greatest versatility per dollar of any flat car.

The fully equipped Versa-Deck car has all a flat car ever needs: permanent dunnage for bulk loads such as pipes, poles or lumber; adjustable and retractable pedestals for containers; low-silhouette



Versa-Deck's 89' length lets you move long loads without employing idler cars.

ACF hitches for piggyback service; and ACF's long-stroke Freight-Saver™ end-of-car cushioning. Versa-Deck may end your flat car deadheading altogether. And it's almost obsolescence-proof because Versa-Deck changes just as fast as your needs.

If you want to know more reasons why Versa-Deck works harder than any other flat car ever built, write ACF Industries, Incorporated, American Car & Foundry Division, St. Charles, Mo. 63301.

MEMBER RPI

acf

ACF INDUSTRIES

GUS WELTY

LINES ON LABOR

THE RAILWAY LABOR ACT is a strange, wondrous and often misunderstood document—inside as well as outside the railroad industry. On the outside, a certain amount of confusion might be expected, even though the Act has been around since 1926. It is after all, only a small part of U.S. labor law; its procedures govern only the rail and airline industries. To an outsider working the labor beat, Taft-Hartley is a far more important piece of legislation. Misunderstanding of the RLA, however, isn't necessarily limited to those who operate outside the railroad industry.

THE MOST RECENT case in point involves—what else?—the fireman-off, fireman-on dispute with the United Transportation Union. The National Mediation Board, it may be recalled, proffered arbitration in mid-January. A time-limit, some thought, immediately clicked into place—and in 30 days, some thought, either side would be free to move, unless both sides accepted arbitration. That's a misunderstanding. The 30 days don't start flipping over unless and until arbitration is rejected and the NMB advises the parties of the rejection. Adding further uncertainty is the fact that there is nothing in the Act requiring either party to reply to a proffer within any specific time-frame. So, while the railroads immediately accepted arbitration, the basic situation remained unchanged for a matter of weeks —because the union stayed silent.

THE EMERGENCY BOARD provision in the Act is another breeding-ground for uncertainty. Two levels of judgment are involved. First, it's up to the NMB to decide whether an emergency exists. Only if that decision is affirmative does the Board notify the President—who "may thereupon, in his discretion," create an emergency board. As the crew-consist dispute seemed to prove—initially with strikes against three major Class I roads and then in the 101-day Belt Railway of Chicago strike—there can be vast differences of opinion as to whether a dispute threatens "substantially to interrupt interstate commerce to a degree such as to deprive any section of the country of essential transportation service." One man's "emergency" is another man's "inconvenience."

MAYBE A TIME LIMIT should be imposed on acceptance or rejection of an arbitration proffer. Maybe Section 10 should be revised to provide more specific guidelines for the NMB's definition of "emergency." Maybe—to sew the whole vest onto the button—it's time for a thorough review of the Act and all its parts.

New unit trains for hauling coal planned by CN, CP

Long-term metallurgical coal contracts between Japanese steel firms and coal producers in western Canada should soon result in inquiries for equipment to be used in two groups of unit trains for the Canadian National and Canadian Pacific.

CP has indicated it will be seeking bids for five trains this year to haul coal under a Kaiser Coal contract with Japan.

The first train, to be ready before the end of 1969, will move between the East Kootenay district of British Columbia and Roberts Bank, a new terminal being built at Vancouver, B.C.

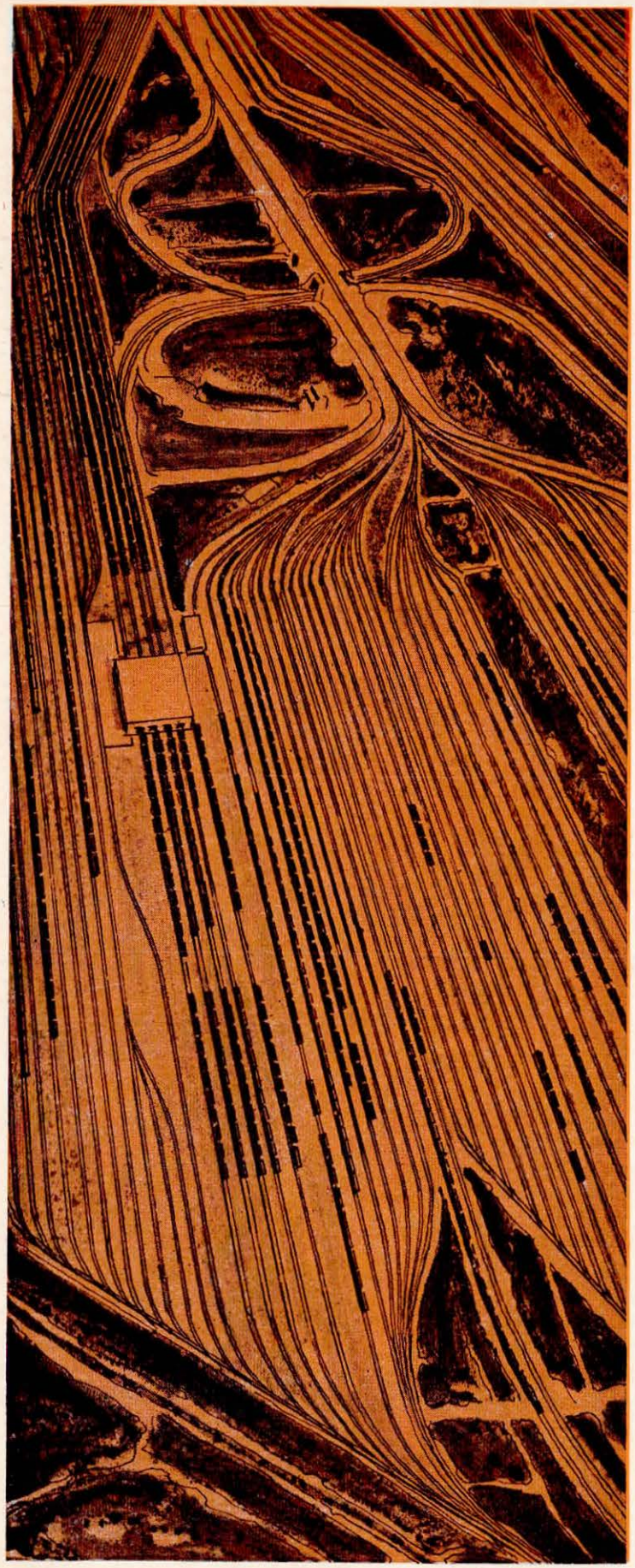
J. N. Frayne, CP vice president, says the unit-train system developed by the railway can be expanded to handle much greater annual tonnages than are so far confirmed by contracts. The road has been experimenting with radio-controlled slave locomotives (RA, Jan. 20, p. 32) and a prototype coal car in preparation for the new traffic.

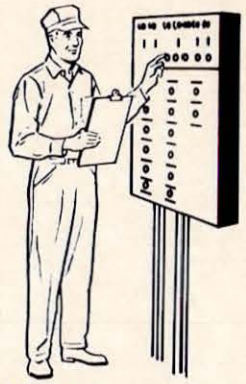
Canadian National will be acquiring equipment for an as yet undisclosed number of 100-car unit trains to move coking coal from Alberta's Smoky River district over the new Alberta Resources Railway (RA, Dec. 16, 1968, p. 7) and the CN main line to Burrard Inlet at Vancouver. A 1,400-mile round trip for each of the projected trains will take four days, with five 3,000-hp units handling it the first 200 miles from the mine to the summit of the Rockies and four units completing the run. At the mine the coal will be flood loaded in four hours at the rate of 5,000 tons per hour; unloading of the train at the Pacific Coast will also require four hours.

R. S. Wilson, general sales manager —railway equipment, Hawker Siddeley Canada recently predicted that the first cars for the new coal trains would be ordered during the first quarter. The HSC Bulkmaster (RA, Mar. 11, 1968, p. 36), designed for automatic unloading, has been one of the cars under test for the new service.

Canadian sources report that tests of the Smoky River coal rate it almost identical in quality to West Virginia coking coal, recognized as the finest in the world for metallurgical purposes. While CP expects to get the first of its unit trains in service late this year, CN's customer is not expected to be producing coal until 1970. Unit trains for potash and sulphur are also under consideration.

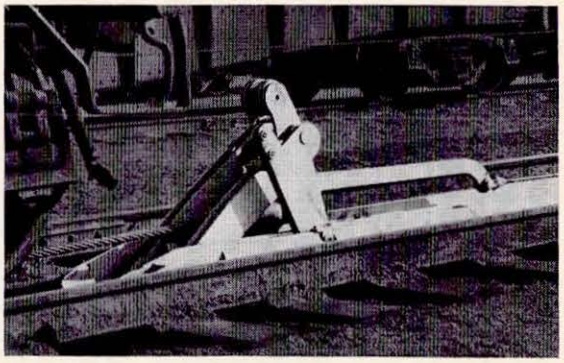
THE NEW YARDS...





How will they compare on Car Repair Costs?

Will the car repair facility be as efficient as the yard? An RMC Spot Car Repair System in a new yard will deliver significant savings! With push-button control, cost reductions are gained in these areas: (1) At least 100% increase in labor efficiency over methods used previously. (2) Profits on AAR Billings. (3) Reduction in per diem costs. (4) 50% to 90% savings on switch engine hours. ■ There now are 75 tracks being served by RMC equipment. During the planning stage, may we discuss how these systems can contribute major savings? **RAILWAY MAINTENANCE CORPORATION, Box 1888, Pittsburgh, Pennsylvania 15230.**



RMC

SPOT REPAIR SYSTEMS

Circle 6 on coupon page 29

A. SCHEFFER LANG

"Railroads must rethink their basic goals"

What can railroads do today to insure for themselves an even greater role in the nation's commerce tomorrow? A quest for answers—from thinkers and doers at the highest levels of government, finance, industry, as well as railroading itself—is the task the editors of Railway Age have taken on in Golden Spike Centennial Year. A series of 12 special articles distilling this thinking will appear throughout the year. In addition, there will appear periodically the transcripts of interviews conducted with men whose views have, for one reason or another, especial relevance. One of the men our editors talked with, several weeks ago, was A. Scheffer Lang, Federal Railroad Administrator in the Department of Transportation. (His term in that post ends this week.) A passionate believer in the future of railroading, Lang has also become known as a blunt-spoken critic of past practices and present trends which he believes may stand in the way of that future. The transcript of his talk with Editor Luther Miller and Senior Editor Gus Welty follows.

Q. Mr. Lang, you have spoken often of a need for more unity in the railroad industry on matters of common concern. Do you see signs that this is developing?

A. I think there has been some progress—by the AAR, for example, in laying the groundwork for the kind of leadership which the Association has been criticized in the past for not giving. There is also a growing awareness on the part of top railroad management that common interests are becoming more important to each company individually. In many public statements and private conversations, industry leaders seem to be recognizing the need for industry-wide action.

Q. Specifically, how is this showing up?

A. For one thing, leaders in the West are expressing a growing and, I think, genuine and constructive concern over the apparent difficulties facing roads in the East—for instance, the difficulties facing Penn Central in coordinating its operations after merger. There is an awareness that if the Penn Central is not able to surmount its difficulties—in particular, with regard to service to shippers—then the impact on the ability of the western carriers to compete with other modes for transcontinental traffic will become increasingly severe. This awareness hasn't always been so frankly expressed. In the past, there's been a certain tendency to say that "if the eastern carriers can't make it, that's too bad—but that's the way it is." You don't hear this any more.

Q. You have also suggested that the industry set up some kind of quasi-judicial machinery to take care of intra-industry problems—problems on such items as per diem and divisions, which so often wind up before the ICC and the courts . . .

A. I am inclined very strongly toward the idea that the industry should make explicit provisions for signing away the rights of individual companies, on some matters, to some kind of quasi-judicial body which the industry itself would establish. Railroads, in other words, should make some new laws for themselves. Of course, the AAR was set up to deal with such problems. In some cases, it has been successful, but in many cases it has not. It seems to me that 30 years of history is ample to convince anyone that something further needs to be done.

Q. This new machinery would be outside the AAR, then?

A. Not necessarily. The important thing is that the industry concede that there are certain kinds of arguments that are just not going to be settled around a table by a committee. Some ultimate prerogatives will have to be signed away to a third-party—but, let me emphasize, a third-party which the industry chooses and for which the industry can establish the groundrules. As it is now, the government is allowed—or forced—to be that third-party. And I think it's clear that this relationship between the industry and government has been less than a happy and constructive one for the industry.

Q. Are railroads thinking in these terms now?

A. I don't know. I don't see much evidence of it.

Q. Does this represent a failing on management's part?

A. Not exactly. The problem is that there are fundamental intra-industry conflicts of interest that work out in dollars and cents for individual companies—and they're not going to go away. Some orderly mechanism has to be set up to deal with these conflicts. The court of last resort now is the ICC or the court system or, if need be, the Congress. It seems to me that it's not all that difficult to identify the areas where conflict is almost certainly going to arise—and then to provide some means for resolving that conflict in a way that will do as little violence as possible to the industry's long-run interests.

Q. Is there any other industry which has met this problem—for instance, the motor-carrier industry?

A. I don't know the answer to that. But let's remember that the motor-carrier industry—your example—is in a very happy situation compared to the railroad industry. The motor carriers' market is growing steadily. Whenever your business is growing, it's fairly easy to plaster over your mistakes. Take the air-carriers' situation: They have made all kinds of mistakes and they have all kinds of intra-industry conflicts. But their business keeps growing, and they just plaster these things over with money and more people. Railroads do not enjoy this luxury today.

Q. What about nationalization of railroads? Is this a possibility, or an imminent threat?

A. It's a very real possibility. It's one which more and more people in the industry are beginning to talk about—and that's disturbing. There's talk that the railroads may not

make it financially—and that if they don't, there's no alternative. Nationalization has happened in every other country in the world; and the factors which drove other countries to nationalize their privately-held railroads are certainly evident here.

Q. Then, in your opinion, is nationalization inevitable?

A. Not at all. Nationalization does little or nothing, as such, to solve the fundamental problems that have driven railroads into fiscal instability or insolvency. The way to avoid these problems is to rationalize operations, rationalize investment, restructure the product and its relationship to competing products—and just to keep moving. These things would need to be done under nationalization just as much as they need to be done under private ownership—and privately-owned companies ought to be able to respond more quickly to such needs than nationalized railways can.

Q. How much concern about nationalization is there in government?

A. The Congress, as a matter of general policy, is on record as wholeheartedly in favor of continued private ownership in all the modes of transportation where we have it today. I don't think there's much chance that this policy will be reversed soon. The Executive Branch of the federal government has also been dead-set against nationalization. The Administration has been concerned, however, that circumstances might develop which would drive the Congress to consider nationalization. I don't think we have had well-formed ideas as to what we could do to guard against such circumstances developing. We have had a general feeling that the Administration, specifically DOT, has a responsibility to get the industry moving in directions which would stave off any possibility of nationalization. More than that, there is a conviction that if DOT does not exercise some leadership, the situation might well deteriorate further. Let me put it this way: There is a general feeling that the industry has not yet demonstrated an adequate capability to deal with its own problems without some major push or real leadership from the Secretary of Transportation.

Q. With these things in mind, what merit is there to the charge that much needs to be done by government—just as one example, in imposing compensatory user-charges on modes of transportation using publicly-provided facilities?

A. The government has both an obligation and a need to make some changes in existing laws and policies. These changes have to be made before the railroad industry will be able to exploit its potential for service and get back on its feet financially, physically, and in all ways. But the record of the past six years offers ample evidence that mere argument by the Administration for a change in regulatory and promotional policies is not likely to produce many changes, unless there is also a restructuring of the views of interested groups throughout the country.

Without a more effective presentation by the railroads of their case to the public and the Congress—and these two are largely inseparable, in my judgement—this restructuring of views will be a long time in coming.

"The worst thing FRA could do for railroads was to become a

In its brief existence, DOT and the FRA have been watched closely from the industry's side of the fence. Watchers haven't always liked what they've seen, or heard.

The role of the FRA, many thought, was the role of the industry's friend in court, the industry's pleader in the halls of government. But it hasn't always seemed to work out that way—at least to some observers. And the focus for dissatisfaction, often as not, has been A. Scheffer Lang—an outspoken administrator who does not hesitate to criticize railroad performance at the same time he affirms confidence in the railroad future.

What is the true role of the FRA? Here's how Lang sizes it up:

"Very clearly, the FRA has an obligation to be in the closest possible touch with railroad problems of all kinds. It has an obligation to provide the Secretary with the best possible advice on how the Department and the government as a whole can most constructively contribute to the solution of railroad problems and, in that way, help the industry develop to the maximum its potential for service to the public.

"This responsibility could not be discharged were the FRA to transform itself into or allow itself to become, merely a special pleader for the industry. We at FRA have a special vantage point from which to view the industry and its problems. Our maximum contribution can be made if we push for those things which our view tells us are in the long run interest of improved rail transportation.

"The record makes it clear that mere pleading for the traditional railroad point of view has never

Q. What is the basic problem? Are railroads not telling their story well? Or don't they have a good story to tell?

A. Largely the latter, in my judgment. There is a communications gap. But I don't think the industry will go very far merely by working on this, as the AAR is trying to do. I think the industry has to develop a better story to tell, before it can make gains with the public which can be translated into Congressional interest and action.

Q. What has to be done, if the industry is to develop this "better story"?

A. Fundamentally, the general public does not see any future for railroad transportation. So, people are just not going to work up any enthusiasm for measures which the railroads say they need—measures which might conceivably work to the disadvantage of other major sectors of the transportation business. This doesn't mean people are against the railroads. People just don't think railroads are important.

Q. Let's concede that the passenger-service problem has hurt, and that some people figure that railroads are gone when the passenger trains are gone. Freight business obviously is not fading out, though it's also running into certain difficulties . . .

A. Even in the freight business, where there is a great potential future, the railroad industry is not giving a very clear indication as to what that future is going to be. And this goes back to a basic point: If you haven't got a story to tell, it doesn't much matter how well you tell it. I cannot help but feel that the public will begin to see a future for railroads when the railroad industry begins to create more of a future for itself.

Q. Your position is that the first job and the foremost one is to "create a future." How do you go about it?

A. You start with elementary things —such as sitting down and trying to think your way systematically through the changes that can most reasonably be expected to take place in the market for transportation. Then you begin to sharpen up your definition of the transportation demands which will emerge. You assess the different ways in which these demands and needs can be met by all modes, present and potential. Out of that process will come a set of specifications for the kind of railroad transportation which might be possible and which would generate a positive market response that was financially attractive to the owners and operators of the transportation system. Then you factor that kind of information down to specifics: What has to be done by the industry collectively and by individual companies so that railroads will meet some significant part of the demand on a basis which makes investment in rail transportation attractive.

Q. Isn't what you have just described a research job? Or is it a planning job?

A. The total job comprises both research and planning. As we have learned in the Northeast Corridor project, research and planning are really inseparable. One needs technological and operational research

doctrinaire pleader for the traditional railroad point of view"

been—and is unlikely to be—very effective in moving government toward actions and policies which will be helpful to railroad transportation as a whole.

"As a result, I decided at the outset that the worst thing the FRA could do for the railroads was to become a doctrinaire pleader for the traditional railroad point of view.

"All of our experience bears out the correctness of this original decision. To the extent that we have been effective in bringing the industry's problems to the attention of government, this effectiveness has derived in no small part from the objective point of view which we have taken.

"I know that there are many people in the industry who do not understand why we have gone about our business as we have. They feel that FRA is downright hostile to the industry—that FRA is surely making life more difficult rather than easier for the industry.

"I find this a particularly perplexing and frustrating attitude. The key members of our staff have all been recruited out of the industry, or because they have had strong backgrounds in some area related to the industry's problems. They were recruited, moreover, because I was convinced they were men who were in fact dedicated to the industry and its future. It's hard for me to understand how people in the industry can imagine that men whose whole careers have been dedicated to railroading are now conspiring to do things that are against the best interests of the good railroads transportation. These are not the sort of men who will suddenly change just because their paycheck comes from the U.S. Treasury instead of a railroad company."

in order to identify possible new courses of action which should be considered in planning for improved transportation. At the same time, one needs to do some planning so that the potential value of various possible research projects can be intelligently assessed. This tie-in between research and planning is also necessary in the railroad industry. The industry needs more and more broadly based research; but it also needs to take a more structured look at where it is going, so that, among other things, it can maximize the effectiveness of its research dollars.

Q. What about this matter of public interest?

A. History is clear: The public considers railroad service to be a public service that meets a public need. All other considerations are secondary, so far as the public is concerned. Whether this is right or wrong is beside the point—because in the last analysis, the public is right and everybody else is wrong.

Look at the record: By and large where there's a confrontation between public and private interests in rail transportation, the public interest seems to come out on top. This has happened here and everywhere else in the world.

Q. So what response does a railroad make?

A. Given this very real fact of life—the essential primacy of the public interest—it seems to me that the owners and operators of the railroads must rethink their fundamental objectives. Otherwise, they're going to be committed for all time to the kind of difficulties they have today—if, in fact, they don't commit themselves to nationalization. The first objective has to be to provide the best possible transportation service for the public. A necessary constraint is that railroads in the bargain have to make a profit sufficient, as a minimum, to attract capital on a continuing and long-term basis. This is a constraint. It's not an objective, because the public won't really let it be.

Q. Doesn't this again suggest that nationalization is inevitable, at some point?

A. It suggests only that nationalization may be inevitable if the industry does not face the fact of the public interest squarely. I don't say that the railroads' owners and managers are consciously flouting the public interest. Though they are accused of that in many quarters, I don't believe it. What I am saying is that railroads have not yet conceded that the public interest is their first and foremost objective. Railroad people continue to insist that the first and foremost objective of their corporations is to make a return on investment. If you're in the restaurant business or the chewing-gum business, this might work just fine. It doesn't seem as though it will work in the railroad business. It has not worked very well in this country and it hasn't worked in any other country either. So, how long do we have to keep on beating our heads against a wall?

Q. Is it possible to go both ways—to serve the public interest objective and at the same time get the profitability that's required?

A. Careful students of transportation consistently conclude that railroads can be financially viable in their competitive environment. There is enough inherent capability for railroads to serve the public interest and still generate returns on invested capital that are sufficient to justify that investment. Put it another way: You can serve the public interest with rail transportation, and make a nice buck doing it. That's the first justification for leaving railroads in private hands. The second justification is that private ownership and management will produce more efficient results.

Q. Do you see an increasing awareness of this in the industry?

A. I don't think the case has been stated with enough clarity. I don't think there's been enough frank talk about it. Leaders in the industry have not been forced or motivated to either accept this view or reject it. And so we still live, in some ways, in a kind of turn-of-the-century world.

Q. Would you say, then, that industry managers today are caretakers, minding the store while the industry slides into nationalization? Has the industry given up on itself?

A. The industry hasn't given up on itself. But neither has it given up on its past, and that really goes to the heart of your question. Let me be explicit: There are a great many people in top management who cannot admit to themselves that the kind of economic power and social prestige which the railroads enjoyed 50 or more years ago is largely gone. These people continue to act in ways that were more appropriate to the industrial scene of two generations ago. Railroads no longer dominate the scene, in any sense. Even the biggest railroad companies today are just run-of-the-mill among major industrial corporations. Yet many railroad people go on doing yesterday's things.

"Nationalization is not inevitable. It does little or nothing to solve the fundamental problems. The way to avoid these problems is to rationalize operations, rationalize investment, restructure the product and its relationship to competing products."

Then, there is another rather special phenomenon which is continuing to cause the industry difficulty—and that's the phenomenon of the Pennsylvania Railroad. In the early years of the century, the PRR was by all odds the best managed and most progressive railroad in the world. It was probably one of the best managed companies of any kind in the country. That pre-eminence—in the days when the Pennsylvania chose to call itself the "standard railroad of the world" —was due in part to the development of the PRR management organization as a self-renewing and stable institution—as a social and economic institution which had the ability and sophistication to articulate itself through thick and thin and to maintain its strength and cohesion. With all this the PRR also developed a strong hold over the thinking of the industry as a whole and over whatever joint action the industry took on its common problems.

Q. And the specific problem . . .

A. The Pennsylvania no longer enjoys the kind of technical and management pre-eminence it once enjoyed, on the industrial scene or even in the railroad industry. It has continued to do good work in some areas—but other railroads have long since also developed a capability for doing good work. In almost any technical or management area you want to name, you can find one or more roads that do a better job. I think you'd find general agreement, moreover, that there are some roads which do a better job in virtually every area. But these other roads don't have the same history of—or the capability for — self-perpetuation that the Pennsylvania does. So we have an organization which has maintained its strength as a cohesive institution, an organization which knows how to dominate industry affairs, and yet an organization which has fallen behind in the quest for pre-eminence. I don't think that the Pennsylvania as an institution—as opposed to the individual managers on the PRR or Penn Central—appreciates what has happened. Now, the Pennsylvania, as an institution, directly controls twice as much of the industry as it did before the merger. But the Pennsylvania as an institution, I think, is operating in a caretaker role. It is protecting that institution as an institution, it is protecting its prerogatives, it is protecting its position of influence over industry affairs—and it is not moving forward the way it once did. Of course, if you want to go to the ultimate in talking about caretaker philosophies, look at the New Haven. There, you have a management which has so much as said that its job was to take care of the railroad in its present form—and if this drove it into bankruptcy, so be it. The New Haven, with this philosophy, has done the industry as a whole a massive disservice because of the adverse impact which the New Haven's trials and tribulations have had on public thinking.

Q. Are you suggesting that the Pennsylvania, as an institution, may be taking itself and perhaps the rest of the industry down the New Haven path?

A. Not exactly. I'm sure none of the responsible people in Pennsylvania—Penn Central—management are consciously willing to take the industry as a whole, let alone their own company, down the kind of road the New Haven has traveled. That would mean, of course, nationalization — because while you can pawn the New Haven off on Penn Central, you can't pawn Penn Central off on anybody except the federal government. I'm sure none of these men as individuals have any thought that they're doing this, or would evidence anything but horror at the suggestion. But the Pennsylvania as an institution? I'm not so sure, there.

Q. How about the trend toward conglomerate-making, by Penn Central and other companies? Do you find this is a healthy thing?

A. It's not clear to me that it's going to be unhealthy. Some companies are going this route to try to exploit the leverage inherent in a major tax-loss carry-forward position. This is just sensible business. But other companies don't have this position. But their moves can be justified on the grounds that they will lead to a long-run strengthening of the corporation—permitting them to do a better job for their stockholders, their employes, and the public.

Q. How do you view the reasons given for diversification?

A. One argument is that when railroads diversify they will be able to generate additional income from investments producing a higher rate of return than you can get from investment in railroad operations. This additional income, then, is supposed to make possible an upgrading of railroad capability which wouldn't otherwise be possible. But it seems to me that this argument doesn't hold water entirely. If a company has at its disposal a greater amount of money which it can invest, as a result of its previous outside investments,

"The industry needs more and more broadly based research; it also needs to take a more structured look at where it is going . . . to maximize the effect of its research dollars."

predictably it will invest that money where it will produce the greatest return. And if the money will produce a greater return invested in businesses other than the railroad business, then where's the incentive for taking these dollars and putting them into railroading? I haven't heard anybody answer that question yet. Now, there is another argument—an old one and one which does hold water, but one you don't hear so much about these days. This is the argument that diversification will provide a more stable income than railroading does because of the extreme cyclical fluctations in railroad earnings which result from changes in the general level of business activity. It's a sensible thing to try to create this kind of earnings stability. But I've heard little talk recently that the kinds of investments railroads are looking for are in fact counter-cyclical in their income-producing characteristics.

Q. Would it be more desirable for railroads to diversify into other modes of transportation?

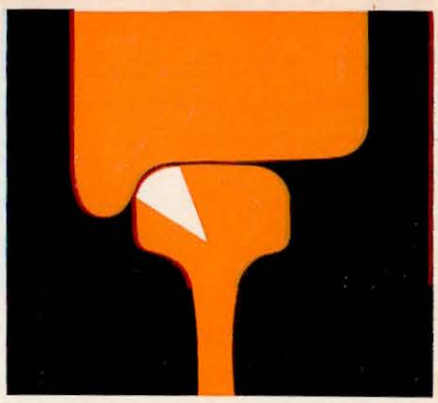
A. I'm inclined to think so, but the direct benefits claimed for this kind of diversification can also be questioned. I do think there's an indirect benefit which might be important in the long run—and that is that a mixing of modes would produce management which is better educated in transportation as a whole. The experience of the Canadian railroads is not entirely encouraging in this respect—but I still think that over a period of time, transfer of understanding and a broadening of view will flow from railroad moves into operation of other kinds of transportation.

Q. Why do you question direct benefits?

A. The direct benefits usually cited would derive from a capability for offering a total transportation-service package to the customer. But if you look at the geographical structure of routes and authorities which a "transportation company" could end up with, you find that single-ownership companies would still be able to offer a full-service capability to only a minority of their customers, albeit a greater percentage of them than today. I'm talking of a service entirely within one transportation company's power to provide. In a majority of cases or with a majority of shippers, interline arrangements would still be required to cover the full spectrum of customers with full-spectrum transportation capability. So most shippers would have the same problem they have today. There would be no one company to which they could go for full-spectrum services. Common ownership would be a step in the right direction—but it would not solve the problem entirely. If we really want to move toward this one-company-service theory, perhaps we ought to be setting up common-carrier superforwarders to accept shipments at any point for any point. If we were to go this route, perhaps we even ought to relieve railroads and trucking companies of certain of the common-carrier obligations they have today—and impose these obligations on super-forwarders instead.

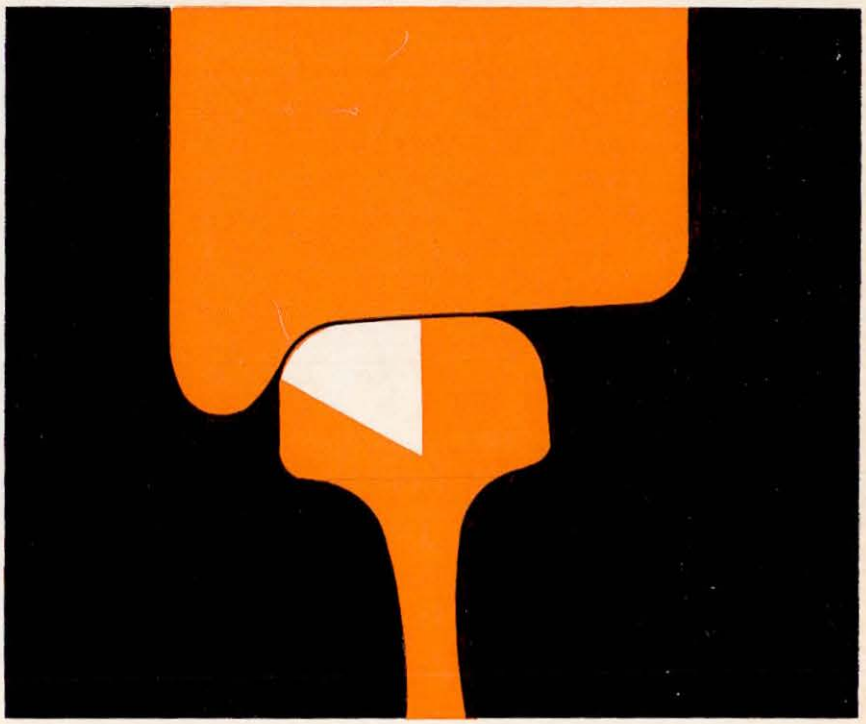
Q. But barring some massive restructuring of transportation, diversification by present modes would bring at least some improvement in the full-spectrum situation . . .

A. Yes, there's no question about that. I suppose when you come right down to it, you realize that there isn't any good reason now why railroads should not be permitted to engage in other forms of transportation. Whatever reasons there might once have been have almost totally disappeared with the arrival on the scene of the private and contract truck and barge operators. These people constitute an invulnerable competitive restraint against capricious action by any of the common carriers. Remember, the capital requirements for getting into private carriage are peanuts—and the cost of disinvestment is also low. So whenever the common carriers fall down on service, the private trucking or private barge route represents a very painless way of striking back—of keeping the common carrier honest. ■



HOW SHELLING DEVELOPS

It begins when car wheels concentrate pressure on a narrow area of the rail near the upper limits of the gauge corner (right). Pressure at this point is compelled by transmission of wheel load on and through the diminished contact area.



. . . AND HOW TO REDUCE IT

Increasing contact area between rail and wheel (right) by a cant ratio of 1 in 14 would reduce unit pressures, and the rail shelling tendencies caused by concentration of load would be minimized.

New way to fight rail shelling

The term "shelly rail" doesn't have a particularly ominous sound. To the uninitiated it would seem to imply that a surface condition of the rail exists, which probably isn't a matter of any great concern.

This concept of the term, as every track man knows, couldn't be more misleading. A shelly rail condition, which is found mostly in the outer rails of curves, can and does lead to internal defects that can result in breakage of the afflicted rails under traffic.

But there is still the question whether the condition occurs enough to be a matter of grave concern. A few statistics will answer this question. According to reports made to the AAR Research Center by about 90% of all Class I railroads there were, on these roads in 1967, a total of 780 service failures of rails caused by compound fissures and detail fractures. Perhaps of even greater significance is the fact that 10,034 such defects were discovered by rail-flaw detector cars before breakage of the rails occurred.

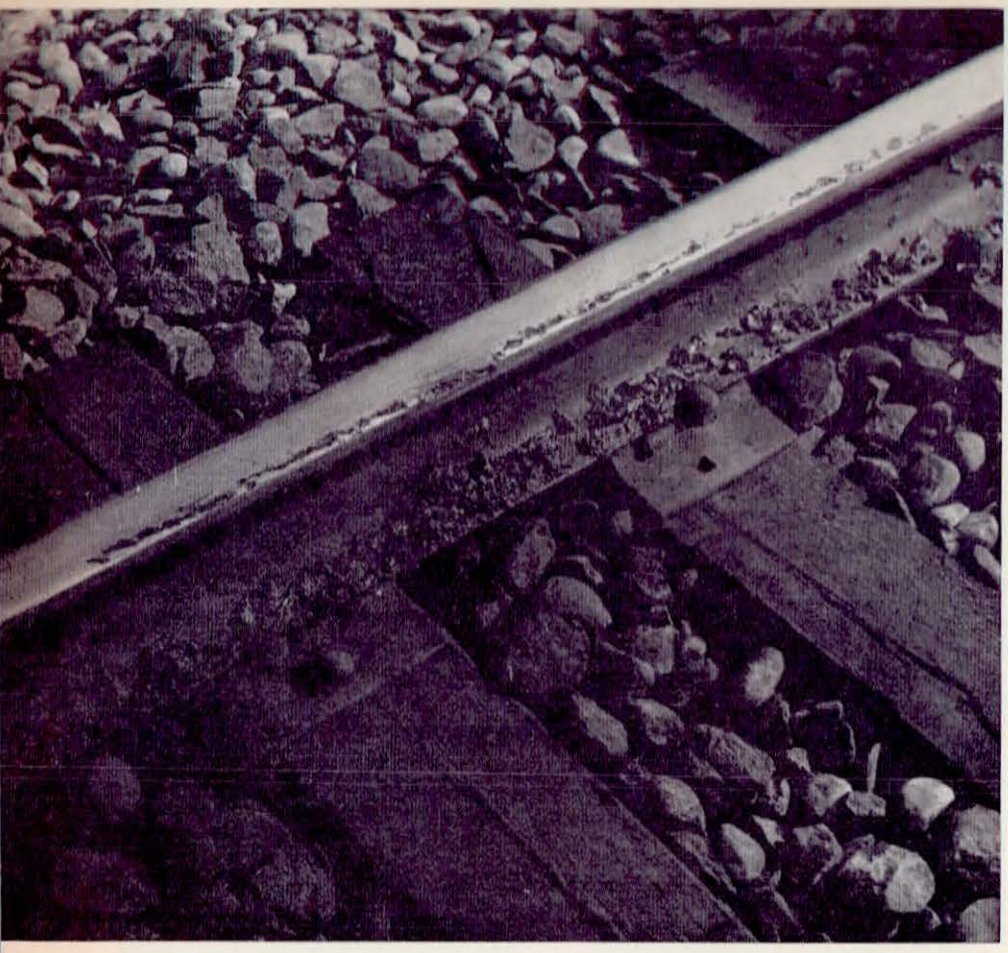
The significant point in these statistics is that, according to G. M. Magee, AAR assistant vice president-research, practically all compound fissures and detail fractures develop from shelly spots in the rails.

But that isn't all. The shelly condition itself sometimes develops to the point where it could cause a derailment.

● **Now—Hi-Cant tie plates.** Shelly rail has been the subject of extensive studies and research in an effort to develop remedial measures. Among those who have studied the subject are Erich Thomsen, engineer inspector on the Western Pacific, and J. E. Campbell, formerly also of the WP. Out of their studies has come a tie plate with an unusually high angle of cant. The special tie plates, named Hi-Cant tie plates, have been made available by CF&I Steel Corp. A patent is pending.

Studies leading up to development of the Hi-Cant concept have been described by Thomsen and Campbell. Their statement first traced the development of the standard 1-in-40 cant as used in tie plates for both tangent and curved track. It all started, according to Thomsen and Campbell, because of the sloping conical tread of railroad wheels, producing a slope of the wheel tread that assumed an angle of 1 in 20.

● **Why tie plates are canted.** "Students of track design," they continued, "observed that rails placed vertically wore to a sloping contour at the surface of the head, and suggested that the rail



Shell sometimes results in development of transverse progressive defects. View above shows both a shell condition and the resulting transverse defect.

Rail shelling looks like this

Shelling occurs mostly on the outer rails of curves and sometimes causes the surface metal at the gauge corner to spall off, as shown in photograph at left.

should be positioned at a 1-and-20 cant so that the top surface of the head would be compatible to the slope of the wheel tread." Because the average worn wheel slope was somewhere between the 1-and-20 slope and a flat contour, "rails canted at 1 in 40 showed a better wear contour than those canted 1 in 20, and the 1-in-40 cant is now generally accepted and used." Canting of the rails had been commonly adopted by the mid-1920's, according to the statement.

The 1-in-40 cant gave the best results on tangent track, it continued, and was adopted as standard for all trackage because the great majority of railroad tracks are located on tangent alignment. Purpose of the cant was to prevent the running surfaces of rails from being worn on a sloping contour. It was pointed out, however, that on curves this was not a governing factor since the life of rails on curves was determined by the amount of rail worn from the side of the rail head.

● **Studies on the WP.** The statement went on to say that in 1955 Thomsen and Campbell devised and caused to be adopted on the WP a system of regulating rail renewal on curves, which involved use of a special device for developing rail contours. When clamped to the rail the device causes an accurate cross section of the rail head to be drawn on a card.

From the accumulation of such cards, "it was early noticed and was the subject of early discussion that outer rails of curves always wore in a way that caused the top of rail to adopt a slope toward the center of track, and this slope was practically constant regardless of the degree of curvature." However, since at that time curve-rail life continued to be governed by side wear of the rail head, no remedial measures for the wear of the top surface of rail on curves were considered.

But conditions have now changed, Thomsen and Campbell noted: "Wheel loads have greatly increased. The cast-iron wheel has practically been replaced by the steel wheel. Diesel locomotives have increased train lengths and introduced regenerative braking, whereby the entire train is retarded by the locomotive instead of each car being retarded by its own brakes."

● **Shelling explained.** Concurrently with these changes, it was noted that the defect known as shelling became prevalent on the outer rails of curves. "A 'shell'," explained the statement, "is a horizontal separation of the metal of the rail head, in a plane usually between one-eighth and one-half of an inch below the top surface of the rail head, forming generally on the gauge corner of outer rails on curves. The separation generally begins at a length of less than an inch, then grows longitudinally along the rail, and at a length of four to six inches the metal above the separation occasionally tends to spall off, creating a potentially hazardous situation."

Practically unknown in 1955, the shell problem has since "reached epidemic proportions," said the statement. This experience is shared "by all railroads having curve-track territories and heavy traffic."

The result, said Thomsen and Campbell, is that most outer rails on curves are now failing from shelling long before the accepted side-wear limit has been reached. With these conditions in mind they returned to a study of the relationship of wheel contact on the rail to shelling, and concluded "that the concentrated heavy wheel loads on a rail not properly canted for the condition contributed to the problem."

● **How shelling develops.** This was a reference to the fact that highly concentrated wheel loads at the gauge corner of the rail head create a condition under which shelling occurs. A brochure published by CF&I Steel on the high-cant concept explains it this way:

"Car wheels concentrate pressure on a narrow area in the vicinity of the upper limits of the gauge corner. The intense pressure at this point is compelled by transmission of the entire wheel load on and through a diminished contact area. It is also known that few shells occur on tangent track. Using, as an example, a 136-pound RE rail set at a 1-in-40 cant on tangent track, the wear contour closely resembles the original top contour of the rail. This even wear is the result of a uniform distribution of loads over the top surface of the rail head.

"If a new rail could be placed on the outside of a curve with its head surface canted at the same slope worn rails assume, an important objective would be reached. Wheel loads would be distributed over a greater portion of the rail head, presenting a bearing surface that is much the same as tangent track. Studies indicate that a cant ratio of 1 in 14 would increase the contact area between wheel and rail, thus reducing unit pressures. Shelling tendencies caused by load concentration would be minimized."

● **What Hi-Cant tie plates do.** The 1-in-40 cant is equivalent to an angle of 1 degree 27 minutes. The 1-in-14 cant adopted for the Hi-Cant tie plates is equivalent to an angle of 4 degrees 12 minutes, or 2 degrees 40 minutes greater than for the 1 in 40. What this means, in other words, is that Hi-Cant tie plates are designed to establish the outer rails on curves at an angle that position running surfaces of the rails so that wheel loads are spread more uniformly over the rail heads.

Another way of putting it is that the Hi-Cant tie plate is designed to place the surface of the rail initially at an angle to which it would eventually be worn anyway if the cant were 1 in 40. The company also states that the head contour caused by Hi-Cant tie plates provides a more suitable wheel-to-rail relationship when the rail is transposed to the low-rail position.

All the studies relating to the high-cant principle are based on the effect of wheels with an average amount of wear of the treads.

A service installation is said by a CF&I spokesman to be confirming the effectiveness of the high-cant principle as a means of eliminating the conditions that cause shelly rail.

The tie plates are being offered by the company for installation at all locations, even on tangent track, where shelly rail has been a problem. They may either be installed when new rail is laid or they may be substituted for the tie plates under existing rail. Hi-Cant tie plates will have a characteristic identifying mark to be sure they will be recognized as such in the field. ■

LUTHER MILLER

AS THE EDITOR SEES IT

FUNERALS AREN'T FUN—"The happy pallbearer!" was one of the kinder epithets tossed at our senior editor, Gus Welty, when he wrote what many railfans construed to be the obituary of the long-haul passenger train some months ago. What these railfans fail to recognize is that pallbearers are nearly always the chief mourners. Actually, Gus is terrified of airplanes; he hasn't been on a commercial flight since he experienced an especially bad trip some years ago returning from Alaska, where he had gone to inspect earthquake damage for us.

BUT SOMETIMES NECESSARY—As proof that officers of the Penn Central and the Southern Pacific (in league with the editors of Railway Age) are hell-bent on burying passenger service before a decent attempt at resuscitation has even been attempted, the aforementioned railfans most frequently cite what is happening in Britain and Japan, where the patient has been revived, to some extent. Actually, the British and Japanese experience drearily confirms what is happening on our own continent. As Canadian Pacific Vice-President S. M. Gossage well knows.

WHAT IT TAKES—Addressing the Board of Trade Club of Metropolitan Toronto, Mr. Gossage said: "Railway passenger service requires a high volume mass movement.... It is probably viable where you have density of population and major centers at distances of from 200 to 400 miles. These are the conditions of the New Tokaido Line of Japan, or the service between London and Liverpool and Manchester of British Railways. Both these services show handsome operating profits, though they required enormous capital investment to make possible their high-speed service."

WE HAVE IT, TOO—"In Canada," Mr. Gossage continued, "these conditions are approached only in the Montreal-Toronto corridor. Here Canadian National is making a gallant effort to prove the viability of railway service.... Beyond this corridor, I see little hope of inter-city passenger service in Canada on an economic basis. Some services will persist for social reasons; but these will have to be subsidized...."

U.S. SPEECH-WRITERS, PLEASE COPY—Substitute Boston-New York-Washington for Montreal-Toronto—and a few years from now, some other corridors—and Mr. Gossage has also described the U.S. situation. Actually, of course, what railroaders are writing is not an obituary, but a birth notice. The birth of a whole new breed of trains. They're just finding it hard to put the point across.

EXPLOSIMETER is a device for detecting presence of explosive vapors. "Sniffer" tube, on desk, can be inserted into tank cars. Here, the device is being checked by IC's A. L. Sams (seated), R. E. Skinner (left), and E. R. Schlaf.

MOTION PICTURES from the IC's extensive film library are an important factor in the railroad's fire-prevention and fire-fighting campaign.

How IC helps local firemen to

Making proper decisions about handling train fires after a derailment requires full knowledge of the ladings in the cars. The Illinois Central has mounted a multi-faceted campaign to help local fire departments when an emergency occurs.

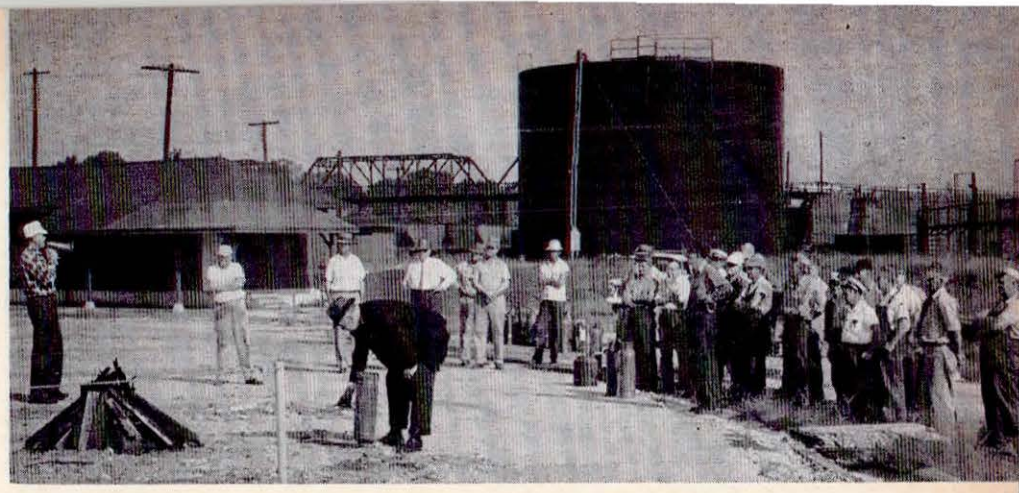
No one wants a derailment, but they do happen. And, if a "feller ever needs a friend," it is a railroad at a time when a derailment occurs and a fire has started in the wreckage. Then, the services of a local fire department are invaluable. Should the firemen appear on the scene with proper equipment, all is well and good. If they don't want to go out, such as when the derailment is outside a fire-protection district, there's not much that can be done about it, but their assistance will be sorely missed and losses will be higher.

Illinois Central has found a way that almost insures full cooperation of fire departments along its lines. It offers them assistance in a number of ways—not by giving them money or new fire equipment, because if the word got around that the railroad was doing this, the results would be too costly, but by assisting the firemen in learning more about their work and especially about how to fight fires in railroad ladings.

● **Don't know what to do.** It all began six years ago when a local fire department was called to put out a fire at a derailment. The men went to the scene but, because they did not know whether to apply foam, water, fog or other means for extinguishing the fire around tank cars loaded with chemicals, they were uncertain as to what they should do. Later, the fire chief was prompted to write the railroad requesting assistance in developing emergency procedures for chemical spills and derailment fires.

Illinois Central, wanting to maintain good public relations with local fire departments along its lines, felt the letter should receive preferred attention. Accordingly, it instructed its fire prevention engineer, E. R. Schlaf, to meet with the fire chief and to be as helpful as he could.

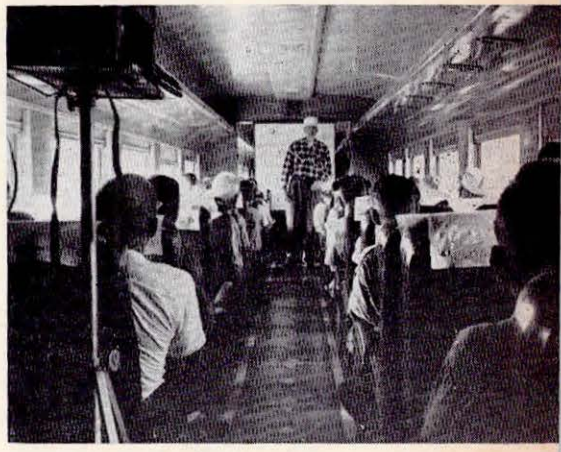
A meeting was arranged for a time when a number of the local firemen volunteers could be present. Schlaf explained that all cars carrying explosives or other dangerous articles must be placarded as to their contents. When such cars are involved in a derailment, the nearest representative of the AAR's Bureau of Explosives is called to the scene to help.



DEMONSTRATION of a water-type fire extinguisher is being arranged here to show the method of fighting fires in ordinary combustibles.

DRY-CHEMICAL fire extinguisher is demonstrated before group including IC's shop fire brigade and members of local fire department at McComb, Miss.

CLASSROOM COACH is used for instructing volunteer fire departments, as well as the Illinois Central's shop fire brigade.



help themselves—and the IC

● **See train conducter.** Fire or mud can sometimes render placards illegible. The best thing a local fire department can do, therefore, when called out to a fire at a railroad derailment, Schlaf advised, is to ask the train's conductor what an involved car contains and what the adjacent cars contain. Fires in some ladings, he continued, are not dangerous but, when mingled with other ladings, can be explosive.

He explained that some fires can be quickly extinguished with water, fog or foam. Sometimes, fires in adjacent cars with different lading require different treatment. On the other hand, Schlaf continued, there are fires that should be left alone to burn themselves out and others where everyone should be moved out of the vicinity. At the meeting, he distributed pamphlets and other literature issued by the National Fire Protection Association (NFPA) that would be useful to fire fighters.

Schlaf told the firemen that Illinois Central was anxious to be as helpful as possible to the local fire departments so that when the railroad needed their help it would be forthcoming promptly. The fire chief said the local fire department was responsible for the program at the next P.T.A. meeting. If Schlaf wanted to, he could take charge of that meeting, said the chief.

Schlaf told A. L. Sams, IC's vice president and chief engineer, what had happened at the meeting. Sams told Schlaf to prepare a program for the meeting, even though the subject might not relate directly to the railroad.

● **Railroads must accept ladings.** Time was short, but Schlaf, an experienced photographer, made a number of slides from an illustrated pamphlet entitled "Fire prevention in the home." These visual aids depicted most of the common fires that occur in the home and told what to do about them. Schlaf, at the meeting, also described fire problems of railroads. He explained that railroads, as common carriers, must accept ladings that are listed in the ICC Tariff 19 and packaged according to its provisions. Other common carriers must do the same thing.

Schlaf pointed out that the current high standard of living entails an element of risk. For example, he said, the public wants gasoline at convenient locations. Imagine, he said, the hue and cry if fire-protection laws required car owners to drive to isolated areas to get gasoline so that tank trucks would not have to travel through congested areas or on city streets to fill underground gas tanks.

After the meeting the local firemen described the program to firemen of other towns and Schlaf became a sought-after speaker for the fire-prevention schools of other fire departments.

From that time, with the full encouragement of his railroad, Schlaf has spoken at many meetings of fire prevention and fire fighting. He has carried the message to children's schools where he also brought out the hazard of playing on the right-of-way. He hopes these talks will also reduce vandalism on rail properties.

● **University program.** The University of Illinois has a fire-training extension course, headed by W. J. Eckert, with a seminar held each June at Champaign, Ill. Each fire department in the state is encouraged to send its new

Frank Malone

WATCHING WASHINGTON

HOT POTATO COOLS—An offer by Defense, Atomic Energy Commission, and Space Administration frees Transportation from a political squeeze. The agencies say they'll share their test facilities with DOT's research and development office. This widens DOT's search for a place to spend $950,000 for testing a high-speed ground vehicle. Earlier site suggestions came from Congressmen who think the appropriation is worth snaring. Though small now, the sum will grow as the Department uses the site for projects other than the high-speed vehicle.

250,000 ACRES—For testing a tracked air-cushion vehicle with a linear electric motor, 25,000 acres are needed. Plans for the test site are detailed by the Federal Railroad Administration (through the Office of High Speed Ground Transportation) in testimony before the Senate Appropriations Committee. The unique track should include a straight section at least 20 miles long. The site should be far enough from homes to preclude noise complaints, and should enjoy a maximum number of good-weather days, hot and cold. "Present planning is to concentrate on the experimental vehicles, tracks, guideways and instrumentation, with very modest expenditures on the test site itself," FRA says.

NO TIMETABLE—The project is now locked up in the office of the assistant Transportation secretary for research and development. It has been there since FRA finished its part—engineering studies—in October 1968. Included in the FRA presentation is a list of 40 possible sites. The presentation is accompanied by the comment of former Secretary Alan S. Boyd that existing government test facilities should not be overlooked, and a DOD reply that its facilities, for one, are filled. Now, with DOD's re-evaluation and the AEC and NASA suggestions, there are 15 more sites to choose from. Not all must be seen physically, since most are fully described on paper. But no one at DOT is ready to say when or where. The choices will be narrowed to three.

POLITICIANS MAY LOSE—The cooperation of other government agencies may have been sought to avoid a political problem. The possibility is reflected in FRA's experience in site-hunting. After an FRA look at the old Lowry air base in Colorado in December 1967, local newspapers blew up the story to say Lowry already was definitely chosen. This set off a political stampede of 14 more suggestions for location of the test facility.

men to take the four-day course. Schlaf has been one of the speakers at these seminars for the past three years. His subject: How to handle a railroad derailment. Although such an audience consists mostly of men not on the lines of the IC, the railroad believes the forum is ideal for reaching a large number of men who do live along the railroad.

Most of Schlaf's public appearances, both on-line and off-line, have been in Illinois. He has addressed the Illinois Association of Fire Protection Districts at Peoria, the Kiwanis Club in the southeast area of Chicago, the Fire Department Leadership Institute at Arlington Heights, and the local fire departments at Blue Island, Centralia, Rockford and Freeport. He also has addressed groups in Kentucky, Mississippi, Tennessee and Louisiana. The public appearances are in addition to his regular duties of training Illinois Central employees in fire protection and the handling of matters pertaining to fires and fire prevention.

● **Motion pictures are popular.** Illinois Central enhances its public service by lending films to interested parties. The railroad has one of the finest railroad libraries of films in this country. A strong believer in visual aids, Schlaf has supplemented his talks with audio films drawn from this source. The films have been made by the NFPA, the Agricultural Nitrogen Institute and Disney Productions (with Donald Duck the star in putting over the message). A catalog of the 16-mm motion pictures about fire prevention and fire-fighting methods has been prepared. It lists 26 different films. New films are added annually. After each of his appearances, a catalog of the films is handed out by Schlaf.

The films, some in color and others in black and white, are used extensively for training programs of fire departments, both regular and volunteer, and by fire brigades of industrial plants.

Illinois Central feels it benefits from this practice in several ways. It creates better relations with shippers for two reasons: Fire damage is reduced in merchandise in transit and the shippers themselves borrow these audio-visual aids for use in their plants. Working with the local fire departments has resulted in better responses, with more enthusiasm, to fire calls on the railroad. The local fire chief, apprised of ladings by the Bureau of Explosives Pamphlet 22 and by NFPA Hazardous Chemicals Data (furnished at no cost by the railroad), can make proper decisions as to fire control or evacuation of personnel when accidents or fires occur. School children are more cooperative and do less trespassing and vandalism. ■

Charles F. Yardley
B&M

R. J. Degnan
C&NW

Otto H. Zimmerman
IC

R. P. de Camara
IC

George Pipas
IC

Paul H. Reistrup
IC

PEOPLE IN THE NEWS

BOSTON & MAINE.—Charles F. Yardley, general manager of piggyback operations, Boston, promoted to vice president—operations. Mr. Yardley is eastern vice president, National Railroad Piggyback Association.

CHICAGO & NORTH WESTERN.—Has established an intermodal sales department to handle piggyback, containerization and foreign trade services. **R. J. Degnan,** marketing manager-intermodal services, heads the new department as general manager-intermodal sales.

J. N. Ball named superintendent, Missouri division, Oelwein, Iowa. **T. S. Belew** appointed assistant superintendent assistant superintendent, M&StL division, Mason City, Iowa.

J. F. McHugo named terminal trainmaster, Twin Cities division, St. Paul.

A. G. Johnson, superintendent, Black Hills division, Chadron, Neb., retired Dec. 31, 1968, after more than 45 years of service. **D. B. Carlisle** named superintendent, Western division, Chadron, to succeed Mr. Johnson. **H. C. Hawk** appointed superintendent, Twin Cities Terminal (Twin Cities division), St. Paul. **D. L. Perrin** becomes superintendent, Central division, Mason City, Iowa. **O. W. Brookes** named ore superintendent, Lake Shore division, Escanaba, Mich. **M. L. Janovec** appointed trainmaster, Missouri division, Kansas City, Mo.

Stephen P. Adik, Jr. named to the newly created position of director of quality control-Motive Power Department.

H. K. Cox and **J. E. Brehm** named master mechanics, Proviso, Ill., and Galena, Wis., respectively.

H. L. Keeler appointed division engineer, Galena division, Chicago.

The following officers of the former M&StL division are now under the jurisdiction of the Central division: **T. S. Belew,** assistant superintendent, and **R. R. Cantwell,** trainmaster, both with headquarters at Mason City, Iowa. **J. J. Ligas, Jr.** and **J. M. Hirschbein** named trainmasters, Central division, Tracy, Minn., and Brookings, S.D., respectively. **J. F. Gallagher** and **M. L. Clifton** become trainmasters, Iowa division, Cedar Rapids and Marshalltown, Iowa, respectively. **D. L. Rosenbaum,** trainmaster, Sioux City, and **F. Cockerham,** trainmaster-traveling engineer, Fremont, Iowa, are under the jurisdiction of the Iowa division superintendent. **R. L. Hampton,** traveling engineer, Twin Cities division, St. Paul, named trainmaster-traveling engineer, Western division, Chadron, Neb., to succeed **M. P. Bracken,** retired. **R. W. Geigel** and **R. H. Byerly,** trainmasters of the former Dakota division, with headquarters at Huron and Rapid City, N.D., respectively, are now under the jurisdiction of the Western division. **J. C. Doty,** trainmaster, Mankato, Minn., transferred from the former Dakota division to the Twin Cities division.

M. C. Christensen named assistant bridge engineer, Chicago.

R. A. Hensel named manager, and **E. H. Connall,** assistant manager, Material Control Center, both with headquarters at Chicago. **R. F. Schauland** appointed manager material flow, Clinton, Iowa.

S. G. Van Arsdell, Jr., director of materials, promoted to assistant vice president and director of materials, and **Robert W. Mickey,** director of real estate, advanced to assistant vice president and director of real estate.

ERIE LACKAWANNA.—John T. O'Neill, district sales manager, New York, retired Nov. 30, after over 43 years of service. **Duane J. Cripps** appointed division sales manager, Jamestown, N. Y., succeeding **N. A. Mitts,** retired. **John J. Weist** succeeds Mr. Cripps as district sales manager, Dallas, Tex. **Daniel R. Hoffman** appointed district sales manager, Philadelphia, succeeding **H. A. Whitney,** retired.

GRAND TRUNK WESTERN.—Richard D. Dykman, structural engineer, Detroit, named engineer of surveys and construction, Battle Creek, Mich., to succeed **I. A. Graham,** appointed terminal engineer of the GTW-CN affiliate, **Toronto Terminal Railway.**

Charles H. Tucker, supervisor of employment and staff recorder, named personnel officer, Detroit. **Clarence K. Jones, Jr.,** assistant supervisor of employment, succeeds Mr. Tucker.

GREAT NORTHERN.—M. J. Costello, master mechanic, Dakota division, transferred to the Willmar division. **R. E. Jaeb,** traveling engineer, Dakota division, becomes master mechanic there. **T. R. Hamilton,** master mechanic, Willmar division, named traveling engineer, Fargo, N.D.

D. J. Mahle named industrial engineer, St. Paul.

ILLINOIS CENTRAL.—Otto H. Zimmerman, vice president-operations, elected senior vice president operations. Mr. Zimmerman will continue to head operations, and will also be responsible for maintenance of equipment, maintenance of way and operations research. The vice president and chief engineer and the vice president-Mechanical Department will be members of his staff. The Industrial Engineering group has been reorganized as Operations Research. **Richard P. de Camara,** vice president, Information and Control Systems, elected vice president administration. The Information and Control Systems Department has been renamed the Communications and Computer Service Department, and **George Pipas,** director of communications, named director communications and computer services. The director of the Purchases and Materials Department will report to Mr. de Camara.

Forrest F. Lipe, assistant manager eastern sales, New York, appointed manager eastern sales there, succeeding **J. J. Mahoney,** retired. **Leon Utterback,** administrative assistant, Chicago, replaces Mr. Lipe. **Roy A. Vinall,** regional sales manager, Chicago, transferred to Omaha, to replace **M. J. Flicker,** retired. Mr. Vinall's successor is **Raymond G. Wiggins,** manager rates. **Stanley H. Olson,** district sales representative, Omaha, named district sales manager there. **Warren M. Greff,** district sales representative, Jackson, Miss., appointed district sales manager there, succeeding **H. T. Lewis,** retired. **Walter T. Neely,** sales representative, Jackson, replaces Mr. Greff. **Sam B. Sadler,** district sales representative, Meridian, Miss., transferred to Greenwood, Miss., to succeed the late **H. D. Winstead.** Mr. Sadler is succeeded by **William H. Moody,** sales representative, Jackson, Tenn. **Walter R. Aswell,** district sales manager, Harlingen, Tex., transferred to New Orleans. **James H. Sands,** district sales representative, Kansas City, becomes district sales manager, Dallas, replacing **W. F. Bruce,** retired. **Walter J. Stein** named district sales representative, Baton Rouge, La.

Paul H. Reistrup, vice president-passenger services, will organize a new department, Intermodal Services. **Henry F. Davenport,** assistant vice president opera-

Henry F. Davenport
IC

W. H. Thompson
IC

Arnold J. Travis
MeC

Miklos B. Korodi
REA Express

tions, succeeds Mr. Reistrup. **Willard H. Thompson,** director of data control, elected vice president operations and general manager.

Edward G. Cook, car accountant, retired Dec. 31, 1968, after more than 50 years of service. **K. H. Lyrla, Jr.** appointed manager, car accounting, and **D. L. Dugan,** assistant manager, car accounting.

MAINE CENTRAL.—Arnold J. Travis, assistant vice president, operations and maintenance, **Bangor & Aroostook,** Bangor, Me., appointed assistant general manager, MeC, effective Feb. 1.

PENN CENTRAL.—Henry W. Large, executive vice president, has announced the restructuring of the freight marketing services of the former Pennsylvania and New York Central which have been operated from separate locations since merger last February (RA, Dec. 9, p.7). **James R. Sullivan,** vice president–marketing, heads the marketing program which will be consolidated at Philadelphia. **Russell W. Talbot,** assistant vice president–marketing, named assistant vice president–traffic –staff, assisting the executive vice president in administrative matters and handling special assignments. **George R. Wallace** (general manager–market research, PRR), promoted to assistant vice president–pricing. **J. M. Ostrow** named assistant vice president–market planning and research (same title, NYC).

Reporting to Mr. Wallace: **John D. Finley,** director–pricing (former PRR general manager–freight rates); **Mark L. Kelly,** director–pricing (former NYC manager of pricing); and **A. Buford Smith,** director–pricing services (former NYC manager of pricing–sales liaison).

Reporting to Mr. Ostrow: **Paul H. Moore,** director of market research (similar position, NYC); and **James L. Forrester,** director–freight service planning and research (manager–research, PRR).

Charles R. Drake, Pacific Coast freight sales manager, has assumed responsibility for the PC's freight sales and customer relations programs, with jurisdiction over offices in San Francisco, Los Angeles, Phoenix, Portland, Seattle and Vancouver. **Joseph A. Armento,** sales manager, Pacific states, San Francisco, retired Dec. 1, after 40 years of service.

Robert A. Summerfield, district sales manager, Camden, N.J., transferred to Trenton, to succeed **Lindsay O. Holt,** who retired Nov. 30, after over 43 years of service.

The six-state Southern Region headquarters in Indianapolis have been expanded to include a regional comptroller's office and system data center. **Harold J. Ness** appointed regional comptroller. **John F. Barry** named manager – Indianapolis data center.

William H. Tucker, vice president–corporate administration, Philadelphia, since last Sept. 1, appointed vice president–New England, Boston, Mass. He will also be president, **New England Transportation Co.,** the highway transport subsidiary of the **New Haven.** Mr. Tucker will continue to report to the chairman, but will be directly responsible to the president for coordination of New Haven operations and other PC activities in New England.

The New Haven will be operated as the New Haven Region of the PC, with operating headquarters at New Haven, Conn. **Jeremy Taylor,** general manager, Southern Region, Indianapolis, named general manager, New Haven Region, at New Haven. Members of Mr. Taylor's staff follow (former positions in parentheses): **Frank E. Moran, Jr.,** executive assistant (assistant to vice president–operations, New Haven); **Clifford W. Owens,** general superintendent transportation (superintendent, PC's Chesapeake Division, Baltimore; **Glenn E. Hartsoe,** chief regional engineer (regional engineer–maintenance of way, PC., Pittsburgh; **Joseph J. Pfister,** regional mechanical superintendent (similar post, New Haven); **James J. Duffy,** superintendent labor relations and personnel (similar post, New Haven); **James W. McDonnell,** regional comptroller (regional comptroller, PC, Philadelphia); **George A. Callahan,** superintendent police (similar post, New Haven); **Joseph F. Spreng,** superintendent, New Haven Division (superintendent, Allegheny Division, PC, Altoona, Pa.); **Ernest C. Cross,** superintendent, Boston Division (superintendent, Springfield Division, Springfield, Mass.). With few exceptions all other New Haven personnel will remain in their present positions.

Non-operating departments, New Haven Region, such as traffic, law, real estate and public and governmental relations, will be based at Boston.

Fred Orner, senior vice president, New Haven, named senior consultant for PC in New England for the New Haven Region as well as PC's coordination activities. Mr. Orner will have offices at New Haven and report to Mr. Tucker.

C. E. Mechem and **A. F. Mahler** appointed assistant general counsel at Philadelphia and Pittsburgh, respectively. **Thomas J. Smith,** assistant general attorney, promoted to general attorney, New York, succeeding **Gerald E. Dwyer,** retiring. Mr. Smith's territory includes the states of New York and New Jersey and Eastern Canada.

In the organization of **D. S. Greer,** director–stations, Philadelphia, the following appointments have been made: **J. E. Green,** manager–station systems and procedures; **A. F. Rozell,** manager–station budgets and **R. I. Wiggins,** manager–demurrage.

On Dec. 31, 1968, **J. S. Fair, Jr.,** assistant vice president–purchases, retired; **L. S. Atkinson,** purchasing agent, retired, and **E. J. Gentsch,** purchasing agent, resigned. Mr. Gentsch joined the **Norfolk & Western** on Feb. 1 as vice president– purchases and stores, Roanoke, Va. **G. E. Hargreaves,** purchasing agent, PC, retired.

PIEDMONT & NORTHERN.—Warren F. Mierop promoted to general eastern agent, New York, succeeding **O. F. Asbury,** who has accepted a position with another railroad. Abolished the position of district freight agent, formerly held by Mr. Mierop.

READING.—A. T. Wilkinson, assistant general auditor, Philadelphia, promoted to general auditor. **C. W. Pleiss,** assistant general auditor, appointed deputy general auditor.

REA EXPRESS.—Miklos B. Korodi, manager of railroad sales for the United States, **General American Transportation Corp.,** Chicago, appointed assistant to the president, REA Express, New York.

OBITUARY

O. J. Capps, who retired in 1960 as general traffic manager, **Georgia & Florida,** died Jan. 11 in Fairburn, Ga.

Charles C. Davis, 50, executive vice president, **Alco Products, Inc.,** died Jan. 8 at Roosevelt Hospital, New York.

Harry C. Johnson, 68, retired assistant comptroller, **Milwaukee,** died Jan. 14 at his home in Chicago.

Alfred C. Kohlhase, 82, retired division superintendent, **Milwaukee,** died Dec. 27, 1968, at Missoula, Mont.

Raymond E. Moore, 60, vice president–finance, **Seaboard Coast Line,** Richmond, Va., died Jan. 11 in Baltimore, after a brief illness.

Tom G. Seese, 69, retired manager of mail, baggage, and express, **Gulf, Mobile & Ohio,** Chicago, died Jan. 18 in Savannah, Ga.

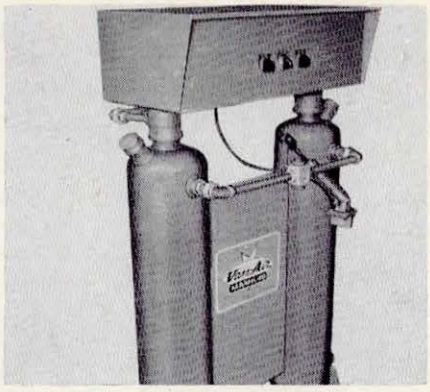
R. R. Strother, 83, retired assistant chief engineer, **Chicago & North Western** died Jan. 13.

A. H. Whisler, 72, assistant to the president, **Frank Speno Railway Ballast Cleaning Co., Inc.,** died Jan. 12.

NEW PRODUCTS REPORT

Data set (RA-1)

The new Infoline CT-42D data set provides an interconnection between data handling equipment to a leased or privately-owned telephone line, or to a privately-owned voice frequency microwave system. Information is transmitted and received at speeds up to 200 bps over a total of five channels on any one 3kHz circuit. It operates in a frequency range from 1920 to 2880 Hz with 240 Hz spacing between channels providing half or full duplex operation on two or four wire systems. *RCA.*



Air dryer (RA-2)

Moisture-free air supplied by the automatically operated dual-tower air dryer "never exceeds a −40-deg F dew point." Towers are switched after each drying and reactivation period by a timer. Controls are consolidated on a top-mounted panel. Heaters, inlet and outlet manifold, and control panel can be replaced in minutes. Three models range in capacity to 200 cfm with maximum working pressure of 200 psig and inlet temperature as high as 100 deg F. *Van Products Co.*

Station carrier (RA-3)

A new station carrier system increases five times the message carrying capacity of telephone cable. By stacking five voice channels at different frequencies on one cable pair, the system makes it possible to provide (within industrial communication networks) telephone service to more stations.

Designated the 861 cable carrier, the system can be installed by simply connecting the incoming and outgoing cable pairs to the station pole box along with a ground, connecting a repeater when required, and connecting the main lines. System maintenance is eased by use of plug-in circuit cards.

The station terminal is 12 in. high, 8 in. wide and 6 in. deep. The central control assembly occupies only 7 in. of vertical space on a 19-in.-wide rack.

The 861 carrier requires no modification to existing dial switching equipment or telephones and operates with Tone-Dial or rotary dial telephones.

Five carrier channels in the 20-kHz to 120 kHz spectrum are provided and include automatic level compensation. *Stromberg-Carlson.*

Track circuit (RA-4)

A completely new vital transistorized audio frequency overlay line of track circuit equipment provides: low or high power transmitter selection for maximum application flexibility, operating over a range of battery voltages from 8.8 to 16.2 volts DC; extended range for both low and high power transmitter to increase the variety of possible applications. Twelve frequencies minimize the effects of possible harmonic interference. *WABCO Signal & Communications Div.*

Telephone sub-set (RA-5)

A new transistorized telephone subset is designed for use at stations on dispatcher, message and similar circuits where attenuation is high enough to make amplification necessary. The CDX-101-A sub-set has a two-storage transistor amplifier, operating on a standard 4½-volt transmitter battery. It is switched on by means of a relay, permitting use of the same amplifying equipment for both transmitting and receiving. *Western Railroad Supply Co*

Yard switch machine (RA-6)

A yard switch has been designed for use in flat switching yards. This fast-acting power-operated switch meets or exceeds standard AAR specifications. The YD-500 features lightweight, rugged design, an operating temperature range of -40° to +160°F, and an operating time of 4.5 sec. The switch operates from 115 volts, single-phase, 60 Hz power. It can be installed for either right-hand or left-hand application and is interchangeable in the field. *Servo Corp. of America.*

RAILWAY AGE
THE TRANSPORTATION WEEKLY

30 Church Street, N.Y., N.Y. 10007 READERS' SERVICE (Att. J. Lindstrom)

PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS IN ADVERTISEMENTS NUMBERED: 1 2 3 4 5 6 7 8 9 10 11

PLEASE SEND INFORMATION ABOUT PRODUCTS DESCRIBED ON PAGE 29 MARKED: RA-1 RA-2 RA-3 RA-4 RA-5 RA-6

NAME ..... TITLE .....

COMPANY .....

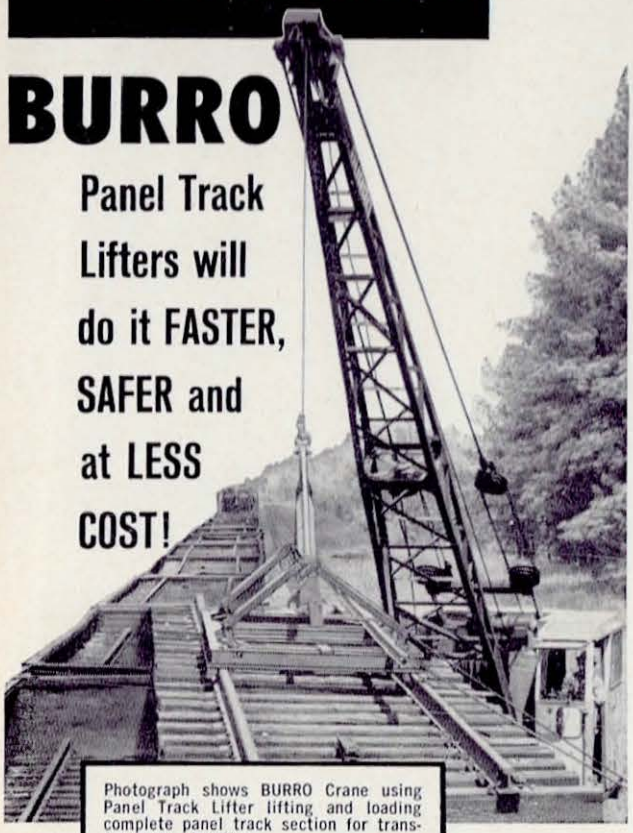
ADDRESS .....

CITY ..... STATE ..... ZIP .....

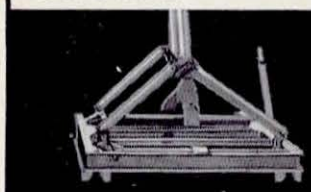
• **Inquiries can be processed only if title and company are shown.** 2/10/69

If you want to
RAISE... RELOCATE,
or RETIRE TRACK...

BURRO
Panel Track
Lifters will
do it FASTER,
SAFER and
at LESS
COST!



Photograph shows BURRO Crane using Panel Track Lifter lifting and loading complete panel track section for transfer to new location.



Lifter is ideal for use with crane in track raising operations where track must be raised 6" or more above ballast.

Saves time and manpower —only one man is required to guide, position and latch the Lifter.

Special Lifter design prevents rails from squeezing in toward center when load is picked up. Panel track is gripped securely, held safely and squarely without sag. Releasing the load is completely automatic.

Write for complete information.

91

WC WESTERN-CULLEN DIVISION
FEDERAL SIGN AND SIGNAL CORPORATION
2702 West 36th Place · Chicago, Illinois 60632

Circle 8 on coupon page 29

RAILWAY BOOKSHELF

The story of the design and evolution of the Tube trains of London from the 1890 so-called padded cells of the City & South London Railway to the automatically-driven cars of the new Victoria Line is told in "Tube Trains Under London" (London Transport, 55 Broadway Westminster, London S.W. 1, England; 114 pp.; photographs; 12 shillings, 6 pence). The author, J. Graeme Bruce, London Transport's mechanical engineer (running-railways), is responsible for day-to-day maintenance of trains throughout the underground system. The book provides a record of the ingenuity of railway engineers in providing better trains of greater capacity, within the limitations of a circular section never much more than 12 feet in diameter and sometimes considerably less.

•

"The pulp and paper industry is the single largest customer for railroads, accounting for about 9% of their freight revenues," says "Marketing Guide to the Paper and Pulp Industry" (Charles H. Kline & Co., 389 Passaic Ave., Fairfield, N.J. 07006; 148 pp; tables and diagrams; $24). "In 1967," the book points out, "the industry spent about $800 million for rail transportation as compared to the total of $9000 million collected by the railroads. Of this amount $530 million was spent for shipping pulp, paper and board, $100 million for pulpwood and chips, and $150 million for fuel and chemical raw materials." The volume predicts that by 1975 total shipments of pulp and paper should reach $34.5 billion, compared with $20.6 billion in 1966.

•

The tenth edition of "Standard Handbook for Electrical Engineers" (McGraw-Hill Book Co., New York; $32.50) reflects the rapid pace of technological advancement over the decade since publication of the previous edition. The 2,400-page volume, arranged to serve as an engineering reference with an orientation to applications and economics, was edited by D. G. Fink, general manager of the Institute of Electrical and Electronics Engineers. It incorporates new sections on direct-energy conversion, high-voltage transmission and the electronic computer. The semiconductor controlled rectifier (SCR), preeminent among new electronic devices because it makes possible solid-state conversion, inversion and control at power levels once thought impossible, has a prominent place throughout this edition. In the section "Electricity in Transportation" is a 37-page chapter on "Railroads" which was prepared by Fred Houser, Railway Age mechanical editor.

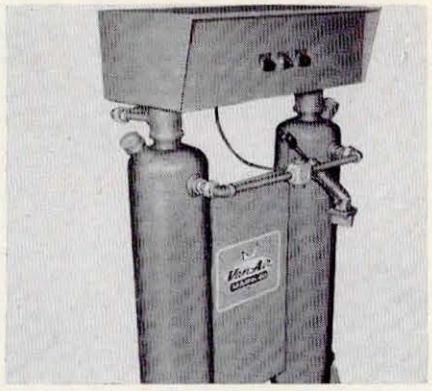
•

"Trends in the Domestic Rail and Motor Freight Industries" (Analytic Services Inc.-ANSER, Falls Church, Virginia 22041; 120 pp.) is the third in a series of transportation studies completed as a part of Analytic Services' self-sponsored research program. The present volume examines the ICC-regulated for-hire railroad and motor-freight industries. Emphasis, says the preface, is placed on major trends occurring in the two transportation modes. "It also describes the position now occupied by each of the two modes within the domestic freight transportation system and presents observations on their possible future characteristics and the services they may provide beyond 1970."

NEW PRODUCTS REPORT

Data set (RA-1)

The new Infoline CT-42D data set provides an interconnection between data handling equipment to a leased or privately-owned telephone line, or to a privately-owned voice frequency microwave system. Information is transmitted and received at speeds up to 200 bps over a total of five channels on any one 3kHz circuit. It operates in a frequency range from 1920 to 2880 Hz with 240 Hz spacing between channels providing half or full duplex operation on two or four wire systems. *RCA.*



Air dryer (RA-2)

Moisture-free air supplied by the automatically operated dual-tower air dryer "never exceeds a −40-deg F dew point." Towers are switched after each drying and reactivation period by a timer. Controls are consolidated on a top-mounted panel. Heaters, inlet and outlet manifold, and control panel can be replaced in minutes. Three models range in capacity to 200 cfm with maximum working pressure of 200 psig and inlet temperature as high as 100 deg F. *Van Products Co.*

Station carrier (RA-3)

A new station carrier system increases five times the message carrying capacity of telephone cable. By stacking five voice channels at different frequencies on one cable pair, the system makes it possible to provide (within industrial communication networks) telephone service to more stations.

Designated the 861 cable carrier, the system can be installed by simply connecting the incoming and outgoing cable pairs to the station pole box along with a ground, connecting a repeater when required, and connecting the main lines. System maintenance is eased by use of plug-in circuit cards.

The station terminal is 12 in. high, 8 in. wide and 6 in. deep. The central control assembly occupies only 7 in. of vertical space on a 19-in.-wide rack.

The 861 carrier requires no modification to existing dial switching equipment or telephones and operates with Tone-Dial or rotary dial telephones.

Five carrier channels in the 20-kHz to 120 kHz spectrum are provided and include automatic level compensation. *Stromberg-Carlson.*

Track circuit (RA-4)

A completely new vital transistorized audio frequency overlay line of track circuit equipment provides: low or high power transmitter selection for maximum application flexibility, operating over a range of battery voltages from 8.8 to 16.2 volts DC; extended range for both low and high power transmitter to increase the variety of possible applications. Twelve frequencies minimize the effects of possible harmonic interference. *WABCO Signal & Communications Div.*

Yard switch machine (RA-6)

A yard switch has been designed for use in flat switching yards. This fast-acting power-operated switch meets or exceeds standard AAR specifications. The YD-500 features lightweight, rugged design, an operating temperature range of -40° to +160°F, and an operating time of 4.5 sec. The switch operates from 115 volts, single-phase, 60 Hz power. It can be installed for either right-hand or left-hand application and is interchangeable in the field. *Servo Corp. of America.*

Telephone sub-set (RA-5)

A new transistorized telephone subset is designed for use at stations on dispatcher, message and similar circuits where attenuation is high enough to make amplification necessary. The CDX-101-A sub-set has a two-storage transistor amplifier, operating on a standard 4½-volt transmitter battery. It is switched on by means of a relay, permitting use of the same amplifying equipment for both transmitting and receiving. *Western Railroad Supply Co*

RAILWAY AGE
THE TRANSPORTATION WEEKLY

30 Church Street, N.Y., N.Y. 10007 READERS' SERVICE (Att. J. Lindstrom)

PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS IN ADVERTISEMENTS NUMBERED: 1 2 3 4 5 6 7 8 9 10 11

PLEASE SEND INFORMATION ABOUT PRODUCTS DESCRIBED ON PAGE 29 MARKED: RA-1 RA-2 RA-3 RA-4 RA-5 RA-6

NAME ..... TITLE .....

COMPANY .....

ADDRESS .....

CITY ..... STATE ..... ZIP .....

• **Inquiries can be processed only if title and company are shown.** 2/10/69

Trainload vs. truckload in the

Here you see one self-propelled vehicle—a train—carrying, say, 1,000 (could be 2,000) other self-propelled vehicles—automobiles out of Detroit.

Makes you think!

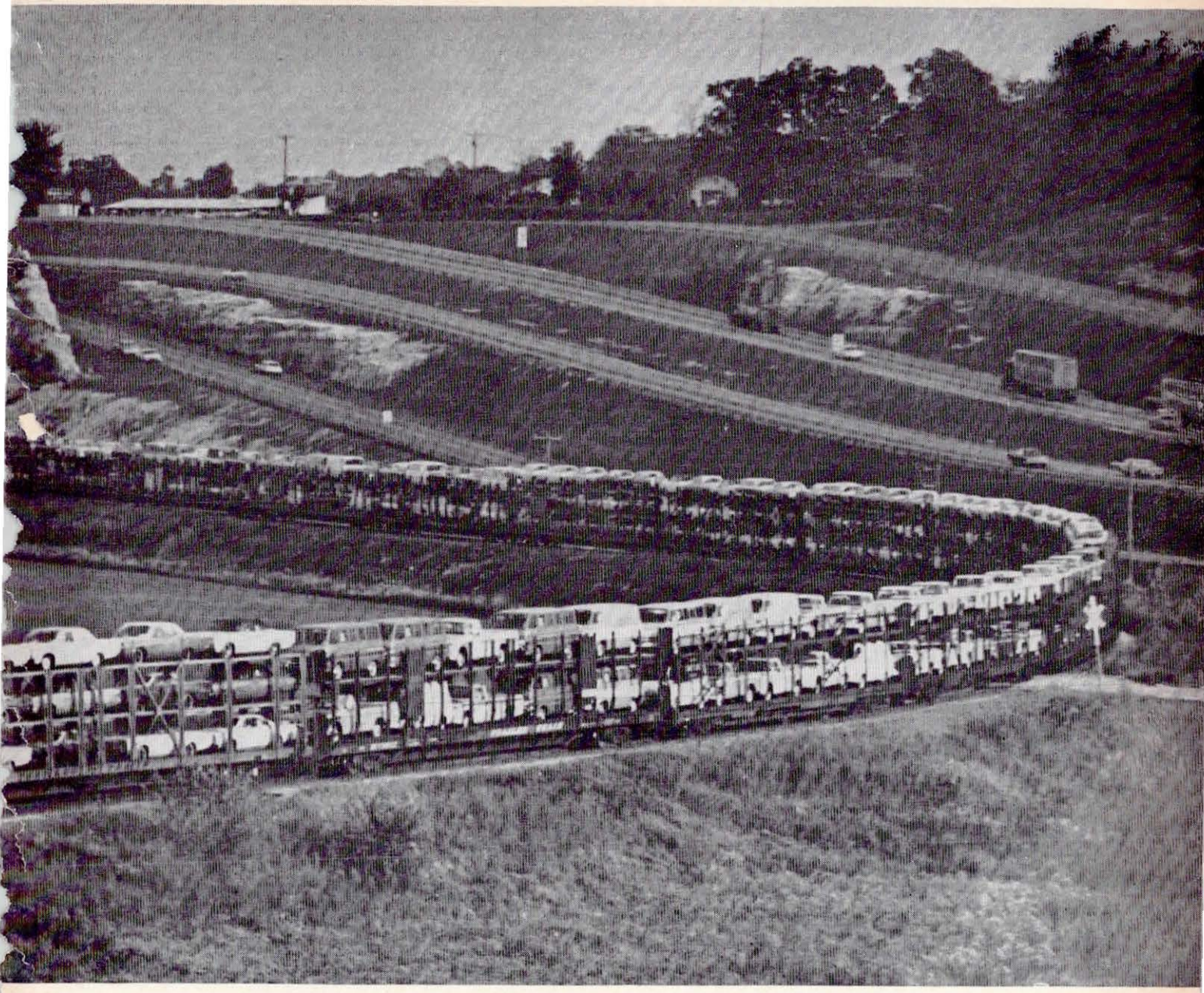
Anyone who looks into America's double-the-population, triple-the-production future and doesn't see a big part of its volume and efficiency riding on the rails is looking through the wrong end of the telescope. For example . . .

Today, some of our best brains are struggling to develop guidance systems for cars and trucks.

Guiding trolleys? Buried electronic guidelines? *Guided movement is built into the railroads with the rails they ride on.*

Other best brains are struggling to un-glut the highways . . .

Car pools? *The train is the biggest car pool ever invented.*



new railway age

Wider highways? *A single track of a double-track railroad can carry the load of an estimated 10 to 20-lane highway, if you can imagine such a monster.*

Safety? Controls to keep a stream of autos and trucks the right distance apart? *The coupled cars of a train can't run into each other.*

Greater efficiency? There are 11 drivers operating the 8 cars and 3 trucks visible on the highway above. *One "driver" is operating the train.*

Greater economy? *For all its fantastically heavier load, the train pictured above is probably operating on only about four times the fuel used by the 3 trucks and 8 cars (which 8 cars would barely fill half of one of the train's auto rack cars!).*

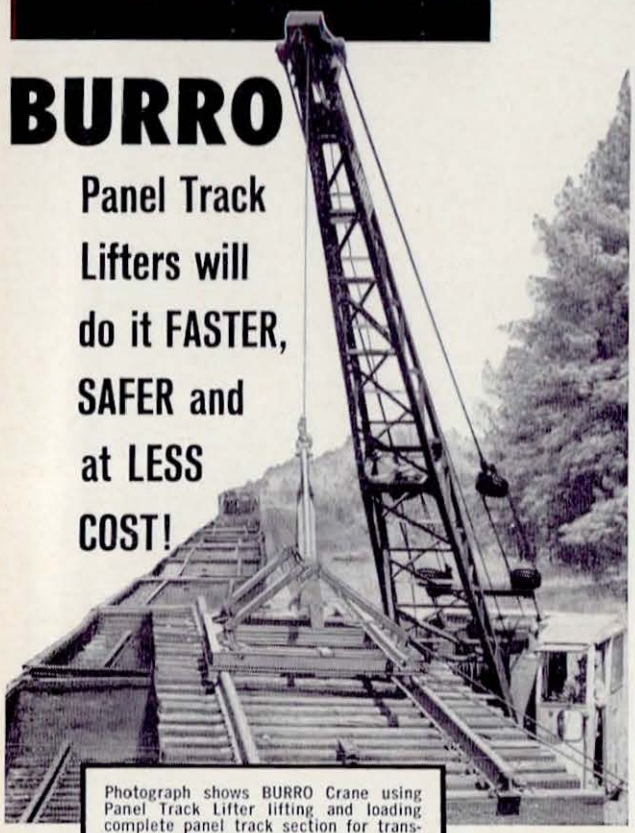
That triple-decker unit train didn't just happen. Today's railroaders eat up new ideas. Where they look to see them first is in weekly RAILWAY AGE. What a place to tell them all about *your* ideas!

Be part of the weekly excitement in **RAILWAY AGE** *the transportation weekly*

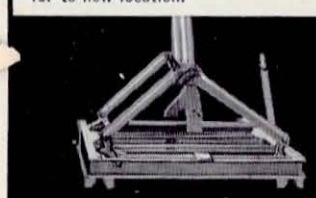
If you want to
RAISE... RELOCATE,
or RETIRE TRACK...

BURRO

Panel Track Lifters will do it FASTER, SAFER and at LESS COST!



Photograph shows BURRO Crane using Panel Track Lifter lifting and loading complete panel track section for transfer to new location.



Lifter is ideal for use with crane in track raising operations where track must be raised 6" or more above ballast.

Saves time and manpower —only one man is required to guide, position and latch the Lifter.

Special Lifter design prevents rails from squeezing in toward center when load is picked up. Panel track is gripped securely, held safely and squarely without sag. Releasing the load is completely automatic.

Write for complete information.

91

WC WESTERN-CULLEN DIVISION
FEDERAL SIGN AND SIGNAL CORPORATION
2702 West 36th Place · Chicago, Illinois 60632

Circle 8 on coupon page 29

RAILWAY BOOKSHELF

The story of the design and evolution of the Tube trains of London from the 1890 so-called padded cells of the City & South London Railway to the automatically-driven cars of the new Victoria Line is told in "Tube Trains Under London" (London Transport, 55 Broadway Westminster, London S.W. 1, England; 114 pp.; photographs; 12 shillings, 6 pence). The author, J. Graeme Bruce, London Transport's mechanical engineer (running-railways), is responsible for day-to-day maintenance of trains throughout the underground system. The book provides a record of the ingenuity of railway engineers in providing better trains of greater capacity, within the limitations of a circular section never much more than 12 feet in diameter and sometimes considerably less.

•

"The pulp and paper industry is the single largest customer for railroads, accounting for about 9% of their freight revenues," says "Marketing Guide to the Paper and Pulp Industry" (Charles H. Kline & Co., 389 Passaic Ave., Fairfield, N.J. 07006; 148 pp; tables and diagrams; $24). "In 1967," the book points out, "the industry spent about $800 million for rail transportation as compared to the total of $9000 million collected by the railroads. Of this amount $530 million was spent for shipping pulp, paper and board, $100 million for pulpwood and chips, and $150 million for fuel and chemical raw materials." The volume predicts that by 1975 total shipments of pulp and paper should reach $34.5 billion, compared with $20.6 billion in 1966.

•

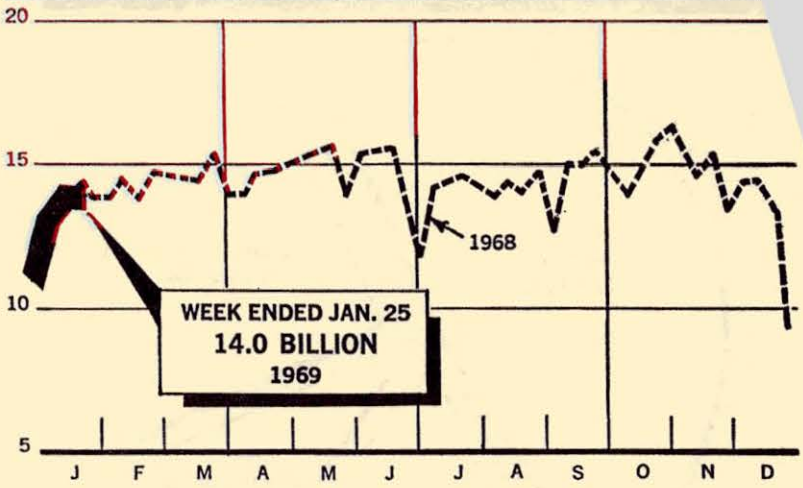
The tenth edition of "Standard Handbook for Electrical Engineers" (McGraw-Hill Book Co., New York; $32.50) reflects the rapid pace of technological advancement over the decade since publication of the previous edition. The 2,400-page volume, arranged to serve as an engineering reference with an orientation to applications and economics, was edited by D. G. Fink, general manager of the Institute of Electrical and Electronics Engineers. It incorporates new sections on direct-energy conversion, high-voltage transmission and the electronic computer. The semiconductor controlled rectifier (SCR), preeminent among new electronic devices because it makes possible solid-state conversion, inversion and control at power levels once thought impossible, has a prominent place throughout this edition. In the section "Electricity in Transportation" is a 37-page chapter on "Railroads" which was prepared by Fred Houser, Railway Age mechanical editor.

•

"Trends in the Domestic Rail and Motor Freight Industries" (Analytic Services Inc.-ANSER, Falls Church, Virginia 22041; 120 pp.) is the third in a series of transportation studies completed as a part of Analytic Services' self-sponsored research program. The present volume examines the ICC-regulated for-hire railroad and motor-freight industries. Emphasis, says the preface, is placed on major trends occurring in the two transportation modes. "It also describes the position now occupied by each of the two modes within the domestic freight transportation system and presents observations on their possible future characteristics and the services they may provide beyond 1970."

RAIL FREIGHT TRAFFIC TRENDS

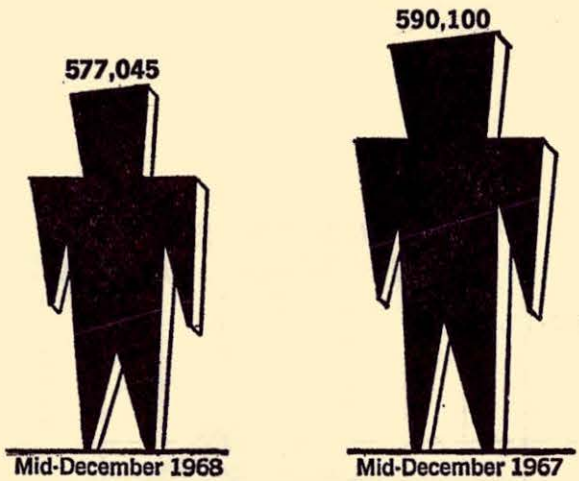
BILLION TON-MILES (Estimated)



Source: Association of American Railroads

RAILROAD EMPLOYMENT

(CLASS I LINE-HAUL RAILROADS)

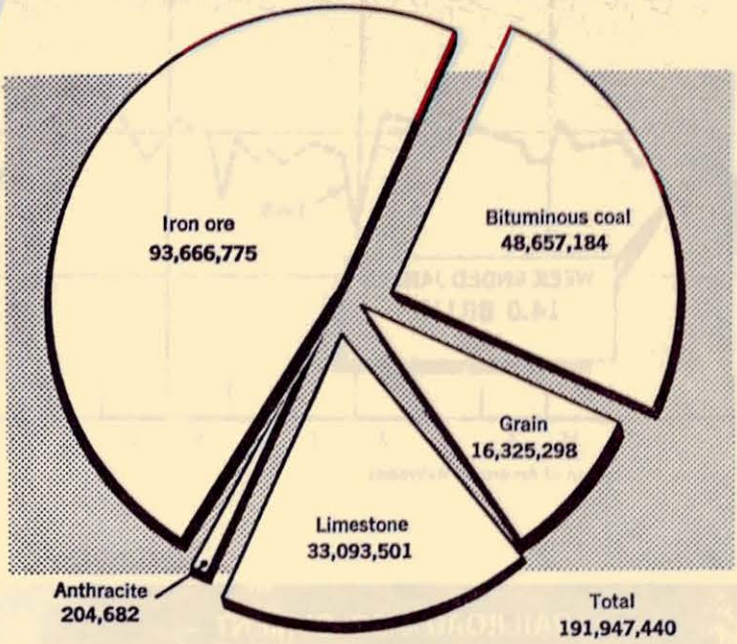


Source: Bureau of Economics, ICC.

Current Statistics

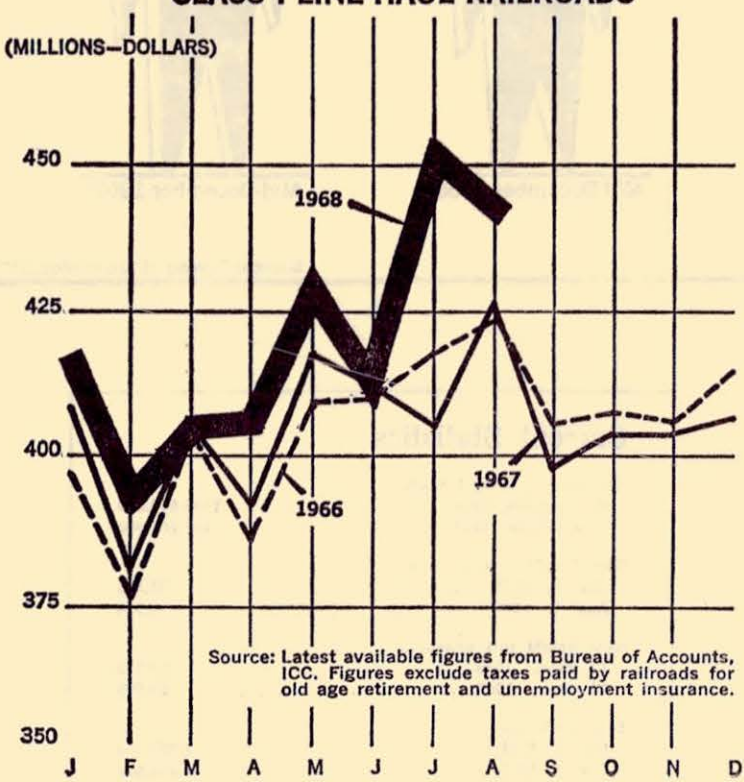
Net income, Class I roads	
Nine months, 1968	$386,000,000
Nine months, 1967	342,200,000
New freight cars on order	
Jan. 1, 1969	31,735
Jan. 1, 1968	24,534
New freight cars delivered	
12 mos., 1968	56,232
12 mos., 1967	83,095
Serviceable cars	
Dec. 1, 1968	1,385,269
Dec. 1, 1967	1,414,632

GREAT LAKES BULK TONNAGE—1968
(net tons)



Source: Lake Carriers' Association

WAGE STATISTICS
CLASS I LINE-HAUL RAILROADS



Source: Latest available figures from Bureau of Accounts, ICC. Figures exclude taxes paid by railroads for old age retirement and unemployment insurance.

MARKET OUTLOOK

CARLOADINGS

Loadings of revenue freight in the week ended Feb. 1 totaled 505,191 cars, the Association of American Railroads announced on Feb. 6. This was a decrease of 5,140 cars, or 1.0%, compared with the previous week; an increase of 1,383 cars, or 0.3%, compared with the corresponding week last year; and a decrease of 14,512 cars, or 2.8%, compared with the equivalent 1967 week. Ton-miles generated by carloadings in the week ended Feb. 1 are estimated at 13.8 billion, a decrease of 0.5% below the corresponding week of 1968, and 1.0% above the 1967 week.

REVENUE FREIGHT CARLOADINGS

Commodity	Jan. 25 week	Preceding week	Per cent change
Grain	20,119	21,662	— 7.1
Farm products	18,591	20,640	— 9.9
Metallic ores	14,979	16,633	— 9.9
Coal	99,871	102,575	— 2.6
Crushed stone, gravel & Sand	21,536	22,096	— 2.5
Nonmetallic minerals	9,365	9,911	— 5.5
Grain mill products	20,398	20,658	— 1.3
Food & kindred products	25,737	25,648	+ 0.3
Primary forest products	23,217	26,018	—10.8
Lumber & wood products (except furniture)	14,780	15,296	— 3.4
Pulp, paper & allied products	24,516	24,129	+ 1.6
Chemicals & allied products	28,287	29,101	— 2.8
Petroleum products	12,782	13,102	— 2.4
Stone, clay & glass products	18,661	18,902	— 1.3
Coke	7,490	8,106	— 7.6
Metals & products	28,745	28,276	+ 1.7
Motor vehicles & equipment	24,855	24,861	—0.02
Waste & scrap materials	14,691	13,910	+ 5.6
Forwarder & shipper association traffic	6,316	6,100	+ 3.5
All other carloads.	73,204	73,061	+ 0.2
LCL traffic	2,191	2,135	+ 2.6
Total cars loaded.	510,331	522,820	— 2.4

CUMULATIVE TOTAL, FOUR WEEKS .	1969	1968	1967
	1,944,307	1,939,982	2,048,987

PIGGYBACK CARLOADINGS

U. S. piggyback loadings for the week ended Jan. 25 totaled 25,777 cars, carrying 41,337 trailers, compared with 24,524 cars, carrying 40,615 trailers, in the corresponding 1968 week. Loadings for 1969 up to Jan. 25 totaled 90,138 cars, carrying 147,179 trailers, compared with 88,789 cars, carrying 146,150 trailers, in the corresponding period of 1967.

FREIGHT-TRAIN CARS

● *Cotton Belt.*—Ordered 200 53½-ft, 70-ton flat cars from Thrall Car at a cost of approximately $2,250,000.

● *Lehigh Valley.*—Is acquiring 260 new freight cars, as follows: 100 100-ton covered hoppers; 100 50-ft, 70-ton box cars; 50 70-ton insulated RBL (grocery) cars; five bi-level auto racks; and 5 tri-levels. All are being built at Penn Central shops in Hollidaysburg and East Rochester.

● *Trailer Train.*—Ordered 590 flat cars as follows: from Bethlehem Steel—225 89-ft., 4-in. standard level cars; from Pullman-Standard—145 low-level and 80 all-purpose cars (all to be 89 ft., 4 in. long), and 140 60-ft. flat cars. So far this year TTX has purchased 790 cars. As of Jan. 31, TTX had 49,376 cars in service or on order.

● *Union Pacific.*—Ordered 100 90-ton roll over, side-door-un loading wood chip cars from the Magor Railcar Division. Delivery is scheduled for next June.

HIGHWAY

● *Missouri Pacific Truck Lines/Texas & Pacific Motor Transport.*—Will spend about $2.5 million for 293 units of motor transportation equipment. Orders cover 42 city pick-up-and-delivery trucks; 50 city pick-up-and-delivery trailers; 102 high-cube trailers for over-the-road and TOFC service; and 99 over-the-road diesel tractors.

NEW FACILITIES

● *Port Authority Trans-Hudson Corp. (PATH).*—Awarded a contract worth $1.3 million to WABCO's Signal & Communications Division for design and supply of an interlocking and signalling system for the new terminal beneath the World Trade Center, Manhattan. The system includes an automatic train dispatcher for sequential dispatching according to a pre-arranged program. The terminal is due for completion in 1970.

● *Southern.*—Placed an order with the Signal & Communications Division of WABCO for eight new Model 50B retarders, to be installed at Brosnan Yard, Macon, Ga.

FOREIGN

● *Chile.*—Teniente Mining Co. ordered 11 specially designed mining locomotives from General Electric. Included are five 21-ton, two-axle units with operator's cab slightly raised and enclosed; and six 33-ton, four-axle units with central operator's cabs. Both are 250-volt trolley units. In addition to these 11 units, three 70-ton electric units for main-line service and two 35-ton electric units for slag haul are on order from GE.

YOU OUGHT TO KNOW

New unit trains go to work—officially

Ceremonies at an Illinois coal mine and a Wisconsin power plant last week marked the official start of a new unit-train service which will involve movement of more than one million tons of coal per year. Burlington will originate the trains at Old Ben Mine 26 at Sesser, Ill.; Chicago & North Western will make the deliveries to Wisconsin Electric Power's Oak Creek generating station at Milwaukee. Wisconsin Electric began planning for the unit-train operation in 1965, as a means of providing a second coal-supply source for its expanded Oak Creek station. The planning came in handy—as the service had to be inaugurated ahead of schedule last autumn to relieve a critical coal shortage brought on by the Belt Railway of Chicago strike. Present plans call for the CB&Q/C&NW trains—one of 100 cars, a second of 125 cars—to make four deliveries per week to the generating plant. The equipment—235 100-ton Thrall-built gondolas—is owned by the power company, which also invested $11 million in coal-handling facilities at Oak Creek.

Civil Engineers will study airport access

The Engineering Foundation, a private organization, has granted $20,000 to the American Society of Civil Engineers for the initial phase of a special research study of problems in getting passengers to and from airports. The broad objective is "to develop guide lines and broad approaches for selecting systems and programs among alternatives for access to airports and to define the research needed to make reliable decisions." Heading up the study will be Robert F. Baker and Raymond M. Wilmotte, both engineering consultants from the Washington, D.C., area.

Intermodal benefits cited by barge operator

Louis R. Fiore, president of the Ohio River Co., thinks it's time for all modes of transport to give their attention "to the art of putting the best efficiencies of water, rail, pipeline and highway together in the most useful combinations." Addressing the Association of Phosphate Rock Producers at Tampa, Fla., he cited one such combination already accomplished: "With Freeport Sulphur Co., and the Seaboard Coast Line, our company examined the optimum contribution transportation could make to reducing the production costs of fertilizer. We combined unit train shuttle movements by the Seaboard Coast Line to Tampa, a fast turnaround for the unit train at a new terminal in Tampa, and a new 26,000-ton, self-unloading barge for cross-Gulf transportation to a fertilizer production plant in Louisiana." The result, said Fiore, was a transport saving of "about 30%."

"Cannonball" may live on—only in song

If Norfolk & Western has its way—the second time around—the "Wabash Cannonball" will become merely something that beginning folksingers learn about early in their training. N&W asked the ICC for permission to drop the St. Louis-Detroit trains in 1967; the ICC told N&W to try again. N&W tried. Its losses have run to more than $1 million during the past two years. And the "Cannonball" is once again up for discontinuance.

CTA measures patronage, finds less to measure

Chicago Transit Authority's recent 33⅓% basic fare increase—from 30 to 40 cents—has produced two tangible results. In the first month after the increase became effective, patronage dropped by more than 15% and revenues climbed by almost 11%, compared with the like period a year earlier. Meanwhile, CTA also found construction of its two expressway median-strip rapid-transit lines running into higher-than-expected costs. As a result, Chicago city council took steps looking toward application for an additional $13 million in federal funds to complete the Kennedy and Dan Ryan lines. Inflation and improvements not included in original plans account for the cost increases.

Thomas A. Micali
Trailmobile

George A. Tedesco
Trailmobile

Carl T. Crumrine
T/M Leasing

W. E. Thomas
Magnaflux

Donald T. O'Connor
Magnaflux

Walter P. Cartun
WABCO

SUPPLY TRADE

Thomas A. Micali, vice president and general counsel, **Pullman Incorporated,** has been appointed vice president and general manager, **Trailmobile Division.**

George A. Tedesco, assistant to executive vice president, **Pullman Incorporated,** has been appointed vice president, marketing administration, **Trailmobile Division. Carl T. Crumrine** has been named vice president and general manager, **T/M Leasing,** a new leasing organization set up by Trailmobile Division. Mr. Crumrine was formerly vice president, marketing, Trailmobile.

W. E. Thomas, president, **Magnaflux Corp.,** has been elected to the new position of vice chairman of the board. **Donald T. O'Connor,** executive vice president, elected president to succeed Mr. Thomas.

Robert S. Grandy has joined **General Standard Co.** as a sales executive, with headquarters in Chicago. He was formerly sales manager-Chicago District, **National Castings Division, Midland-Ross Corp.**

Orton Crane Co. has moved their general offices from 608 S. Dearborn, Chicago, to the Oakbrook Executive Plaza, 1211 W. 22nd St., Oakbrook, Ill.

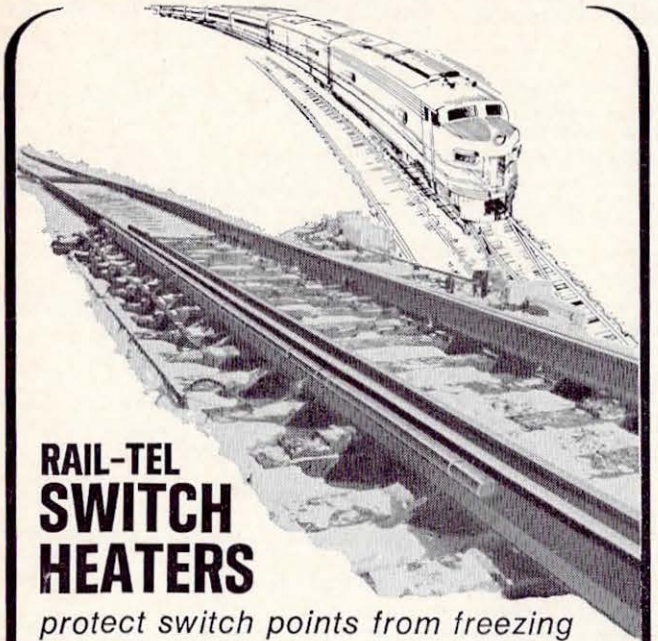
Walter P. Cartun has been elected vice president and group executive—transportation, at Pittsburgh, a newly created position, **Westinghouse Air Brake Co.,** subsidiary of American-Standard. **R. William Ayres,** divisional vice president—marketing, has been elected vice president of WABCO and named general manager, Westinghouse Air Brake Division, replacing Mr. Cartun. **C. B. Ramsdell,** divisional vice president—marketing, has been elected vice president of WABCO and appointed general manager, Signal & Communications Division, succeeding **C. D. Howell,** elected vice president and groups executive—general industry, a new position.

Donald M. Deer, manager—public relations, appointed assistant vice president—public relations.

Richard W. Foxen has been elected vice president—operations staff, a new position. He will be responsible for marketing, manufacturing, purchasing and engineering.

Robert H. Burton has been appointed sales engineer, Signal & Communications Division, Chicago.

(Continued on page 38)



RAIL-TEL SWITCH HEATERS

protect switch points from freezing

Proven design assures correct combustion under all conditions. Improved unit burner increases efficiency — dispatcher controlled, or automatic operation with the Rails Company Snow Detector.

New! Type RTS — Advanced design — Space age materials — New burner construction — New inspirator design.

made to last ■ easy to install ■ requires minimum maintenance ■ proven in thousands of installations all over the country.

THE RAILS CO. Maplewood, N. J. 07040 • St. Louis, Mo. 63101
Chicago, Ill. 60604 • San Francisco, Calif. 94105
In Canada: The Holden Company, Ltd.

Circle 9 on coupon page 29

It's not how heavy they're made...

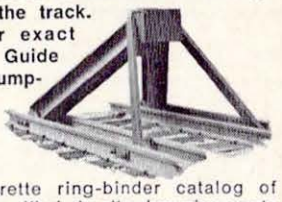
but where they're made heavy that counts

Hayes ALL-STEEL BUMPING POSTS

carry their weight in their legs where every ounce is working metal

Weight alone is no measure of value in a bumping post. The thing that counts is how efficiently the weight is used to take impact to the earth.

Hayes Posts utilize heavy steel bars in tension and massive H-columns in compression. Shock is distributed evenly and absorbed naturally under the track. Six service types meet your exact requirements. Ask for "3-point Guide to Ordering Bumping Posts."



Free leatherette ring-binder catalog of world's most-specified derails, bumping posts and wheel stops (including periodic supplement sheets). Write on letterhead.

© 1968 H.T.A. Co.

Track safety devices that WORK at the job.

Hayes Track Appliance Co.

RICHMOND, INDIANA 47374

Circle 10 on coupon page 29

STUDY CAR MAINTENANCE & INSPECTION in spare time at home

Ever notice the respect given someone who knows more about the work than the next guy? It's usually "Ask Joe" or, "See what Joe thinks about this." While that knowledge won't always add to the pay check, it does pay off in great job satisfaction and personal pride. And who can put a dollar value on that?

You can be such a man by taking this two-year course for car department employees whose work requires an intimate knowledge of car maintenance and repair. Two lessons a month, in simple, non-technical language, guide you swiftly to a better working knowledge of the subject. Your lessons will be graded by experienced instructors who give individual, personalized advice as needed. The cost is low and payable in monthly installments. For full information, return coupon.

RAILWAY EDUCATIONAL BUREAU
1809 Capitol Ave.
Omaha, Neb. 68102

Send full information on carman and car inspector home study course.

RA-2/10/69

Name_____

Address_____

City, State, ZIP_____

Railroad_____

Job title_____

J. James Stallmann
Pullman

Donald W. Wessels
Sylvania

Charles Stinson
Gould Marathon

Gerald F. Lahey
Union Tank Car

J. James Stallmann has been appointed advertising manager, **Pullman-Standard** and **Trailmobile Divisions, Pullman Incorporated.** Mr. Stallmann was previously advertising manager, **Pullman-Standard. John D. Adams,** marketing research analyst, **Trailmobile,** has been named assistant to the advertising manager, **Pullman-Standard** and **Trailmobile.**

Donald W. Wessels has been named mid-western regional manager-railroad sales, **Commercial Electronics Division, Sylvania Electric Products Inc.,** with headquarters in Melrose Park, Ill. Mr. Wessels was previously manager of railroad sales, **Fairbanks-Morse Weighing Systems.**

Charles Stinson has been named national field sales manager-consumer and industrial products, **Gould Marathon Battery Co.** He was previously southeast regional sales manager.

Gerald F. Lahey has been appointed vice president-car repair and maintenance, **Tank Car Division, Union Tank Car Co.,** to succeed **Jack E. Cunningham,** resigned. Mr. Lahey was assistant vice president of the division's Car Repair and Maintenance Department.

Frank J. Cullen has been named vice president, **Federal Sign & Signal Corp.,** and manager of the company's **Western-Cullen Division.** Mr. Cullen, who has been Western-Cullen Division vice president in charge of marketing, succeeds **George L. Hudson,** who has resigned, but will continue to serve the corporation as a consultant.

John G. White, Jr., has been appointed manager of sales, railroad products, **Bethlehem Steel Corp.,** at Bethlehem, Pa., succeeding **C. M. Wright,** who retired Jan. 31. Mr. White was formerly general manager, Pacific Coast sales, San Francisco.

R. M. Costello has been appointed western sales manager, **Magnus Metal Corp.,** subsidiary of **National Lead Co.,** at Chicago.

J. Bard McLean and **Maurice Costello** of **McLean & Costello Co.,** have been named eastern area sales representatives for the **Freight Equipment Division, Holland Co.,** Chicago. They will have offices in Wayne, Pa.

Frank J. Cullen
Federal Sign

John G. White, Jr.
Bethlehem Steel

Sam W. Pickering has been appointed manager of marketing, **L. B. Foster Co.,** Pittsburgh, Pa. Mr. Pickering was formerly manager of sales development, Carlon Products Division, Continental Oil Co., Cleveland.

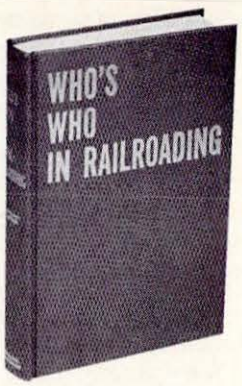
Advertisers Index

ACF Industries, Inc., American Car & Foundry Div. 10-11
Baldwin-Lima-Hamilton Corporation, Standard Steel Div. .... BC
Griffin Wheel Company, Div. of Amsted Industries ..... IFC
Hayes Track Appliance Company 37
Rails Company, The 37
Railway Educational Bureau, The 38
Railway Maintenance Corporation 13
Tamper, Inc. ..... IBC
Timken Roller Bearing Company —RR Division, The 4-5
Western-Cullen Div. Federal Sign & Signal 32
Whiting Corporation 3

Know your man!

How pleased you are when somebody knows who you are, where you've been, what you're doing! How pleased other people are when you know something about *them!*

You'll find the new 1968 edition of "Who's Who in Railroading" a gold mine of information about many a man important to you:



- His present title or position
- His business address and home address
- His age, marital status, family
- His career—including railroad, professional, military
- His technical society memberships, public offices held, books and articles written
- His education, clubs, fraternity

"Who's Who in Railroading" contains 6,000 entries—of which 1,500 are new in this new 16th edition. They include railroad executives, leaders in the railroad equipment and supply industries, railroad labor leaders, members of regulatory bodies, ICC personnel, transportation economists, specialists in railroad finance.

You should have this "Blue Book" of the North American railroad industry within easy reach!

CLIP THIS COUPON

Simmons-Boardman Books
30 Church St., New York, N.Y. 10007

Please send ..... copy(s) of the 16th edition of "WHO'S WHO IN RAILROADING" at the special prices listed below:

☐ I enclose $23.00 per copy in full payment.
☐ Bill me $25.00 per copy and ship postpaid.

NAME .....

STREET .....

CITY .....

STATE ..... ZIP .....

HAVE A HEART SUPPORT YOUR HEART FUND

GIVE TO THE COLLEGE OF YOUR CHOICE

Management Consultants

International management consulting firm announces unusual opportunities for individuals who have a proven record of accomplishments in the railroad industry. We are interested in two or three individuals whose background should include recent demonstrated performance in such areas as operations, engineering, marketing, planning and management information systems.

These are substantial career positions offering professional as well as financial growth opportunities. If your background coincides with our needs we will be happy to arrange for a mutually convenient interview date.

Send resume & salary history in strict confidence

BOX #257
RAILWAY AGE
30 CHURCH ST., N.Y., N.Y. 10007

An equal opportunity employer

CHIEF MECHANICAL OFFICER

20 years experience with Class I Eastern Railroad desires similar position. Box 258 Railway Age, 30 Church St., New York, N.Y., 10007.

Desire sales or management position with company selling products to U.S. railroads. 20 years experience with excellent contacts in various departments. Degree — Resume and references furnished upon request. Send resume or letter in confidence to:

BOX 238
RAILWAY AGE
14 EAST JACKSON BLVD.,
CHICAGO, ILL. 60604

ASSISTANT SIGNAL ENGINEER

Chicago based railway supply company has opening for Assistant Signal Engineer. Prefer man with five years field signal experience. Position involves engineering and sales.

Send resume to

R. A. Mather, Western-Cullen Division, Federal Sign & Signal Corporation
2742 W. 36th Place, Chicago, Ill. 60632

Advertising Sales Department

C. J. Fisher, vice president—sales, Chicago

New York, N. Y. 10007,
30 Church St., (212) 964-3060
W. A. Cubbage—regional sales manager
Charles E. Keil—district manager

Chicago, Ill. 60604,
14 E. Jackson Blvd.
(312) 427-3501
K. F. Sheeran—regional vice president;
John M. Brennan—regional sales manager
Wm. J. Lyneis
Ross Mandic
—district managers

Lakewood, Ohio 44107,
12700 Lake Ave., Apt. 1310
(216) 226-8038
Harry H. Melville—vice president

Pittsburgh, Pa. 15219, Room 720,
(412) 471-7871
Frick Building
Ronald M. Giallonardo—regional sales manager

Dallas, Tex. 75206
Noel Page Building
6400 N. Central Expressway
(214) 361-6972
Joseph Sanders

Los Angeles, Cal. 90017,
1313 West Eighth St.
(213) 483-8414
Fred Klaner, Jr.

San Francisco, Cal. 94133,
515 Pacific Ave.
(415) 421-7004
Lewis A. Vogler & Co.

London S. W. 1, England
TRafalgar 6318
67/68 Jermyn St., St. James's
Max F. Holsinger, Peter Clifton, Alan Berg

Manchester 22, England
Haletop
Wythenshawe Civic Center
Ian Goulden

Paris, 8e, France
70 Rue de Ponthieu
Stephen Brown-Joussard

4 Düsseldorf-Rath
Eitelstrasse 32
Max F. Holsinger, E. Hillerbrand, Herbert Haibt, Reinhard Schomburg

Tokyo, Japan
Sun Gain Shia, Ltd.
Shiba Nikkatsu Bldg.
13, Shiba Park
Minato-Ku
C. H. Yiu, Managing Director

VIEWPOINT

Is another wearisome, expensive labor battle ahead?

It's hard to say it. It's unfortunate that it has to be said. But—here we go again.

The railroads, through press material and advertising over the "American Railroads" line, raise the issue of "featherbedding."

The United Transportation Union, through press material but (thus far) no advertising, counter-punches with the observation that "name-calling is a sick kind of refuge for those who have fallen into a poverty of fact and figure."

As might be expected, the industry's campaign—in the new fireman-off, fireman-on dispute—covers a number of points, such as technological change and the cost to the public if "unneeded" employees must be used.

As might be expected, the UTU reply seeks to bring all employees and all of railroading under the featherbed accusation, by inference or extension or whatever. UTU also presents carefully-selected sets of statistics which make the industry look less than good, in terms of safety and in terms of passing labor "savings" along to the public.

There are interesting elements to both campaigns, as they have unfolded thus far. On the railroads' side, there was the decision to go-for-broke with publicity and advertising the moment acceptance of arbitration was announced. On the union's side, there was the total omission of any reference to arbitration—and at the time the union unleashed its publicity campaign, it had had the National Mediation Board's proffer of arbitration under advisemert, without an announced decision, for more than two weeks.

One conclusion: The railroads took a chance, albeit a reasonably safe one; and the UTU opted for a grinding of the publicity mills before coming up with its decision on arbitration.

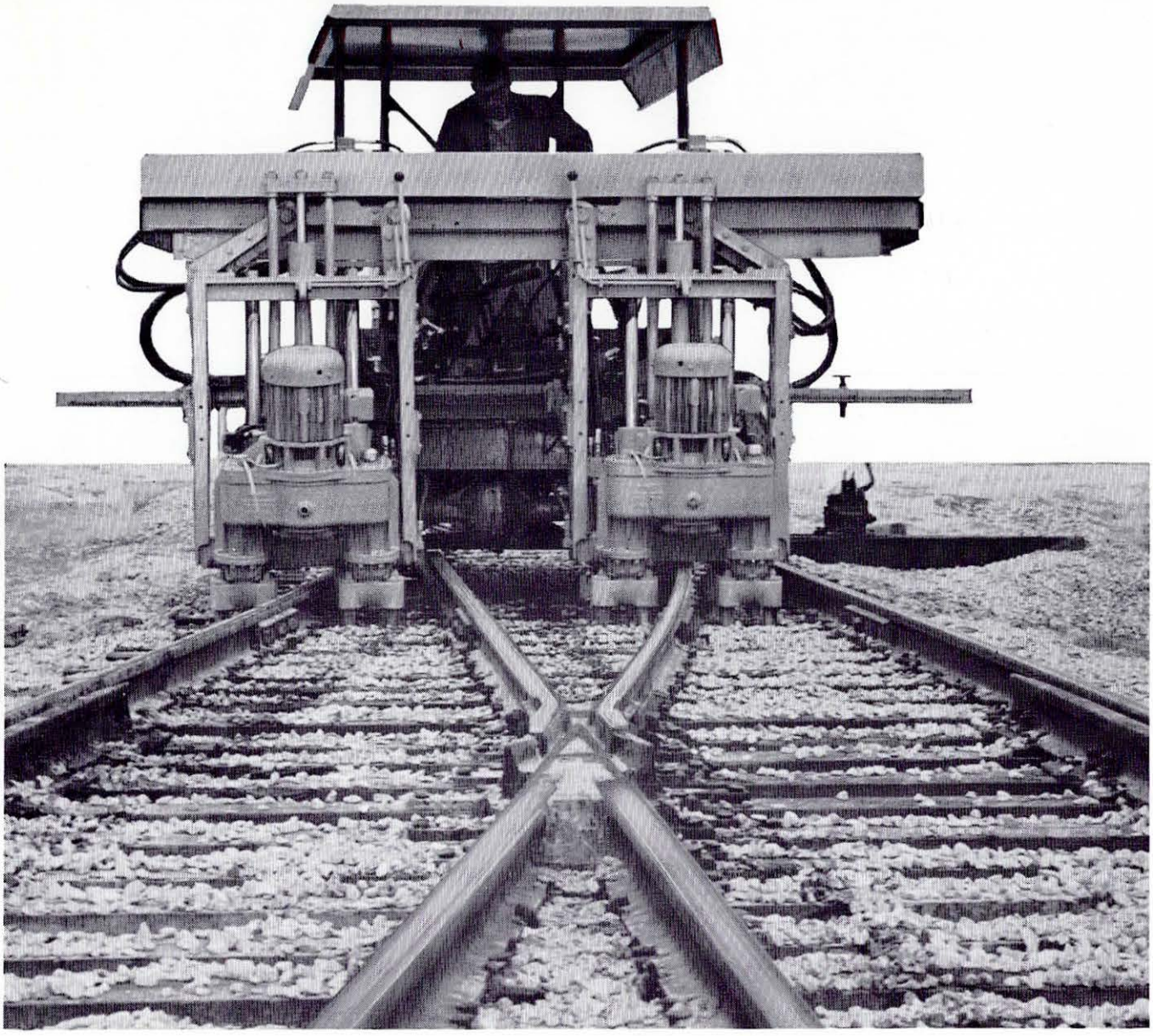
So where do the industry and its employees go from here? The industry and its employees may be going into another wearisome, expensive, damaging battle. There may be another emergency board on the fireman question, and there will be sound and fury and it will possibly signify very little. There may come a time for a strike. Compulsory arbitration may follow, since Democratic administrations have twice imposed arbitration upon rail labor, and one couldn't expect less of a Republican administration, could one?

The tragic thing is that there's really little need for all this—this public posturing, this lock-stepping toward crisis, this potential destruction of public confidence in an industry.

WILL THE UTU FORCE A CRISIS?

It is no absolute whitewash of the industry, and none is either needed or intended, to say that it is the UTU which will force any crisis that comes. A few questions remain: Is a crisis necessary? Does UTU have to force the issue—almost inevitably to lose, after great travail—to justify the overwhelming support that members of the Brotherhood of Locomotive Firemen & Enginemen gave to the four-way merger which created UTU? Do reputations have to be made or re-made? Do union leaders have to read the future out of the past, and base their leadership on concepts which have been worn out for a generation or more?

One operator tamps the entire switch!



The New 16-Tool Switch Electromatic Tamper

It does everything the popular Junior Electromatic can do. And more! The TAMPER Switch Electromatic tamps the complete switch, turnout, crossover or ladder-track with 16 tools. At production tamper speed and pattern! Workheads can move laterally to give you higher, more uniform compaction. Another big advantage: it needs only one operator.

When you're not using it as a switch tamper, it doubles as a production tamper — for smoothing and spotting. And as a second machine in a tandem operation. The TAMPER Switch Electromatic is available with a pivoting frame to line the vibrators to the same degree as the turnout being tamped. So you get the same results as when you tamp a standard cross tie.

TAMPER designs and manufactures a complete range of railway track maintenance equipment, from spike pullers to switch cleaners. All pacemakers in design and performance.

Write today for literature on the new 16-tool Switch Electromatic and other TAMPER products.

Tamper INC.

Head Office & Plant — 2401 Edmund Rd.,
West Columbia, S.C. 29169 • 803/794-9160
Plant — 160 St. Joseph Blvd., Lachine
(Montreal), Que., Canada • 514/637-5531
Parts Depot — 2147 University Ave.,
St. Paul, Minn. 55115 • 612/645-5055

Circle 2 on coupon page 29

We forge safety into every diesel wheel.

McCARTNEY LIBRARY
EVA COLLEGE

After 30 years of forging A-40's, we think we know a few things about wheel excellence. We've put all of them into our new D-40's. So if you need diesel wheels that must take a beating on the road, you'd better see us. We bloom, forge, and roll a diesel wheel until there's not a shred of shrinkage possible. Every wheel that rolls off our lines is as safe and sound as any diesel wheel can be.

If you're after plenty of wear metal on the rim, we think you'll find that the vast majority of our wheels have a rim thickness of 2¾" or more.

Our new D-40's save you plenty of machining time, too. We can supply them with a hub tolerance of ±⅛". That's better than the +1 and −0 requirement of the D-40 specifications. And that saves you even more machining time.

What about heat treatment? Our heat treating process achieves the greatest penetration possible. And our unique steelmaking process provides the best combination of strength and wear resistance.

We've forged safety into diesel wheels for 30 years. People keep coming back for more. How about you? Standard Steel Division, Burnham, Pa. 17009.

BALDWIN·LIMA·HAMILTON
A subsidiary of Armour and Company ®

BLH
STANDARD STEEL

Circle 3 on coupon page 29

FEB 15